

Industrial Development

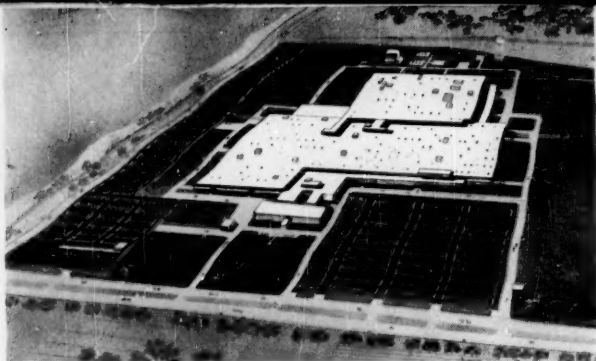
THE NATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION



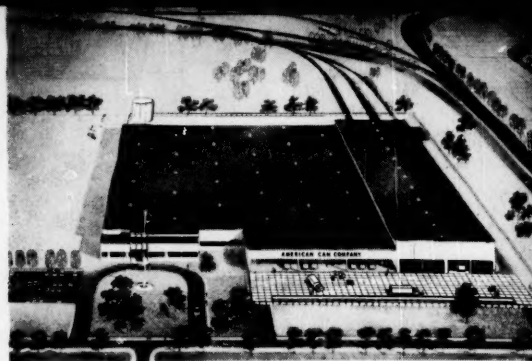
Owens-Illinois' Carl R. McGowan (right), who discusses the glass container industry's prospects on page 9, chats here with Miss Jody Shattuck (Miss Georgia) and Company Board Chairman J. P. Lewis at recent opening of O-I plant in Atlanta.

AREA FEATURES

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West Texas	49



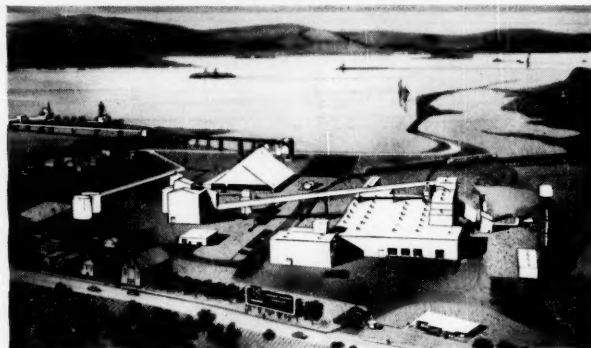
"PERFECT SITE" SAYS FORD of 203-acre site at Lorain, Ohio for its new assembly plant found with the help of the Central.



"CLOSE TO OUR SUPPLIERS" says American Can Company of Hammond, Indiana site for its new coil-processing center found with the help of the Central.



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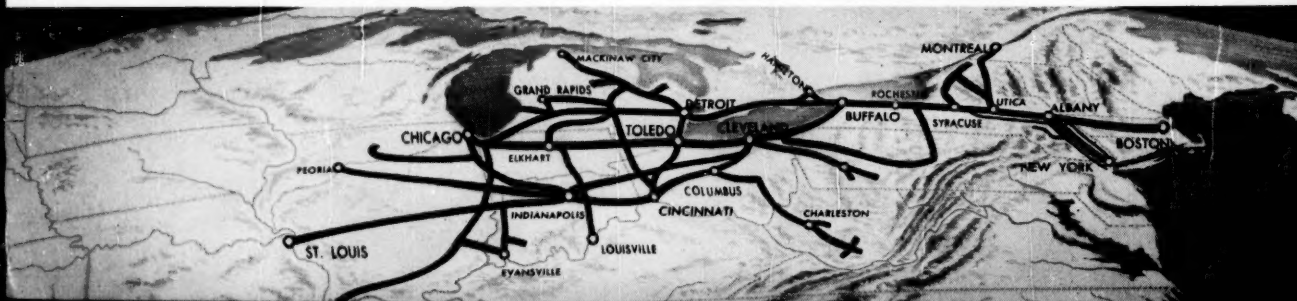
Your inquiries are invited. For more information, write to: Arthur E. Baylis, Vice President, Dept. D, New York Central Railroad, 466 Lexington Avenue, New York 17, N. Y.

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INDUSTRIAL DEVELOPMENT

and manufacturers record



Volume 128 January 1959 Number 1

Issued monthly, except semi-monthly in May and October (14 issues a year), by Conway Publications, Inc., 109 Market Place, Baltimore 2, Md. Tel. LExington 9-7065.

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Annual subscription rate for **INDUSTRIAL DEVELOPMENT** including **MANUFACTURERS RECORD**, the **SITE SELECTION HANDBOOK**, and the **BLUE BOOK-DIRECTORY** is \$12 per year. (A 50 per cent discount is allowed manufacturing executives responsible for selecting sites for new facilities. Enclose card or letter-head as proof of position). Entered as second class matter at Baltimore, Md. under the act of March 3, 1879.

Guaranteed minimum circulation 16,000 Copies. Copyright 1959 by Conway Publications, Inc.



Free book of facts on selected plant sites in the Cleveland area

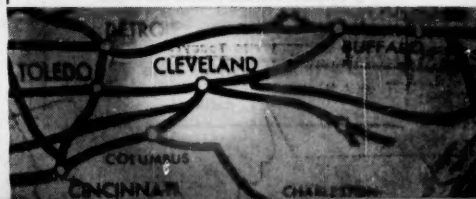
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For copies of plant site brochures and information on how New York Central can help you locate a plant site, write: Mr. Arthur E. Baylis, Vice President, Dept. D, New York Central Railroad, 466 Lexington Ave., New York 17, N.Y.

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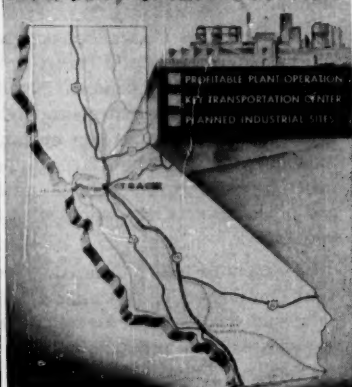
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IN OUR OPINION...

Too many management executives, perhaps influenced by the recent slump, "are underestimating the extent of growth in the 1960's and are not making adequate plans to meet competition in the coming demand for goods." That's the opinion of financier Thomas E. Lenihan, president of C.I.T. corporation.

With the U. S. approaching its greatest economic expansion, "almost one fourth" of the productive facilities in use are "at least 20 years old and more than 65 percent are at least 10 years old," Lenihan says. Sounding a warning note, the New York executive asserts "We are entering an era . . . of tremendous opportunity for manufacturers of all kinds of goods . . . (but) . . . the businessman of tomorrow should not expect to compete for his share of the market with production equipment he bought 10 or 20 years ago."

Stanford Research is planning a new revision supplement to the well-known *Chemical Economics Handbook*. This series is loaded with useful information for anyone who watches economic barometers.

Austin Company engineer B. R. Sayer told a Pennsylvania group recently there's "a tremendous outlook for new plant locations" because many firms are dissatisfied with their present sites. He said a recent survey of one large industrial city revealed that 41 percent of the city's plants felt that their present sites were inadequate.

The new Small Business Investment Act seems to have stimulated a lot of conversation, but not much activity. Ohio Secretary of Commerce William Carroll seems to express feeling of most state officials, saying "we're following a wait and see policy." Most experts in the field apparently believe the effect of the new program on industrial development activities will be slight.

The Missouri Bus and Truck Association has taken a forward step in scheduling a session on industrial development. It's about time the other common carriers joined the railroads in promoting the development of the areas they serve.

The Danish refusal to let our atomic sub visit Copenhagen sent chills down the spines of men in the nuclear industry field. Already, they've seen several moves to rewrite zoning ordinances in certain areas to prevent location of reactors. This problem could seriously deter important industrial programs, hurt industry-seeking communities. If this issue arises in your area, be sure to get in touch with Atomic Industrial Forum, New York, to obtain industry viewpoint before action is taken.

We were glad to have a letter from the new Federal Aviation Agency chief, General Elwood Quesada, offering assurance that business aircraft would receive full consideration in planning future traffic programs. This is vital, because restricted areas are still being created—in past month new restrictions were reported in certain parts of South Carolina and Texas.

—H. M. C.



WASHINGTON DEBATE

Should Uncle Sam Bail Out Distressed Areas?

FOR those concerned with expansion planning and plant location, one of the big questions before the new Congress is area assistance legislation. It will be recalled that a \$275 million program to help economically distressed areas was passed by the last Congress but was killed by presidential veto.

In blocking the legislation, President Eisenhower indicated, however, that he objected to specific points in the bill rather than to the broad principle. He called upon Congress in the current session to enact area assistance legislation "more soundly conceived."

And thereby hangs the debate. What type of assistance to distressed communities is sound?

During the three years that the various proposals have been under discussion, positions have been taken along traditional lines by organized labor and by business organizations. The unions have urged the most drastic measures, involving largest and broadest Federal expenditures. Organizations such as the U. S. Chamber have argued that awarding Federal support to "sick" communities does not get at the root of the problem.

It is contended that it makes no more sense to bail out a community which has mis-managed its affairs than to offer Federal help for a private firm faced with bankruptcy.

Between these opposing views, there are those who feel that the Federal government can and should provide assistance for those communities which, through no fault of theirs, find themselves in a desperate economic situation. Here the debate is a question of "how" rather than "whether."

Finally, there are the inevitable hangers-on—those who are eager to project their interests into any program which dips into the public till. For example, a last-minute politically-inspired compromise resulted in adding a form of farm relief to the original act designed to relieve industrial distress.

Too, there are bureaucrats in Washington who would delight in having another big spending program to administer. They're already jockeying for position in the event a spending measure is passed.

Almost completely overlooked in the debate hence far has been an opportunity to inject life into the nation's dragging industrial dispersal program. Since most of the distressed communities happen to be in locations which meet certain dispersal standards, it would seem that a carefully-planned Federal program might kill two birds with one appropriations act.

Meanwhile, many of the communities classified as distressed when the debate began have solved their problems at the local level and no longer need help. Many industrial experts believe this is the happiest way out for all concerned.



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LETTERS

SIRS: Please accept our cordial acknowledgment of the receipt of your gift, in answer to our recent request, of H. McKinley Conway's 700 Plant Location Factors (1D, October, 1957.)

This is a welcome addition to our collection and we wish to thank you for your generosity.

DOROTHY J. HARMON
Gifts and Exchange Librarian
University of California
Los Angeles, California

SIRS: The MANUFACTURERS RECORD has achieved a notable place in the world of business during the past 75 years. Judging by its past performance, we know that its service to commerce and industry will increase in the years ahead.

HARVEY S. FIRESTONE, JR.,
Chairman,
Firestone Tire & Rubber
Company, Inc.
New York, New York

SIRS: Noticed in your "In Our Opinion" column, November issue, that you cited Oklahoma as being the second state to consider a 100 per cent financing plan for industrial buildings. *Let's not forget MAINE.* The Maine legislature early this year passed a bill authorizing the establishment of the Maine Industrial Building Authority. This authority has recently been court tested and was given a unanimous green light by our Supreme Court. The Maine plan allows the M.I.B.A. to guarantee up to 90 per cent on industrial buildings with only 10 per cent equity money supplied by local interests.

The State of Maine is continuing to lead in the nation with financial plans to encourage industrial development. You may recall that the Development Credit Corporation of Maine was the first of its kind in the nation.

Enjoy your publication—keep up the good work!

EUGENE S. MARTIN, Manager
Area Development Council
Portland, Maine

SIRS: It has been my good fortune to be a regular reader of MANUFACTURERS RECORD for more than 30 years. I hope this qualifies me as an old and appreciative friend, although 30 years is a short time when compared to the 75-year history of the magazine.

Congratulations on a remarkable achievement in service to Southern industry and best wishes for an equally rewarding future.

CARTER L. REDD
Regional Vice President
General Electric Company
Atlanta, Georgia

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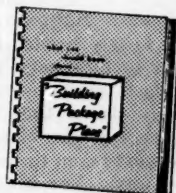
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LETTERS

SIRS: Congratulations . . . on the 75th anniversary of **MANUFACTURERS RECORD**.

MANUFACTURERS RECORD has made an important contribution to our nation's business and industrial development over the years. Through one of the most dramatic periods of our national economic growth, it has served as medium for disseminating the information and ideas on which free enterprise thrives.

Our best wishes for continued success in your work of keeping American business stimulated and informed.

RICHARD S. REYNOLDS, JR.,
President
Reynolds Metals Company
Richmond, Virginia

SIRS: Please accept my congratulations to **MANUFACTURERS RECORD** on its 75th anniversary.

As the United States continues its phenomenal growth in all fields, certainly news of industrial development, expansion plans, surveys of all kinds, plant locations and relocations, market conditions and other activities will be of vital concern to businessmen everywhere.

The next decades will provide the **MANUFACTURERS RECORD** with broad opportunities for continued service, and I want to wish you every success in your endeavors.

L. L. COLBERT, President
Chrysler Corporation
Detroit, Michigan

SIRS: . . . It has been a real pleasure to do business with you this year. I think we have partially accomplished what we set out to do — to let people know we offer an area development service in the Pacific Northwest. I have gotten several inquiries so far and expect more on this final mailing of the year. Thanks for your kind attention to our jobs.

STEWART G. NEEL, Manager
Area Development
Puget Sound Power & Light Co.
Seattle, Washington

► The mailing referred to concludes a series of three which Conway Publications has made this year for Puget Sound Power & Light.

SIRS: In your July 1958 issue of **INDUSTRIAL DEVELOPMENT** on page 13 you presented a list of reprints available on background studies of certain areas.

Our newly organized Industrial Development Department soon will be making studies of the areas we serve with electricity, and could use this material as a guide in their work.

Would it be possible to obtain one copy of each of the reprints listed on page 13 . . .

P. A. WERNECK, Vice-Pres.
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Rio De Janeiro, Brasil

► Copies sent.

January, 1959

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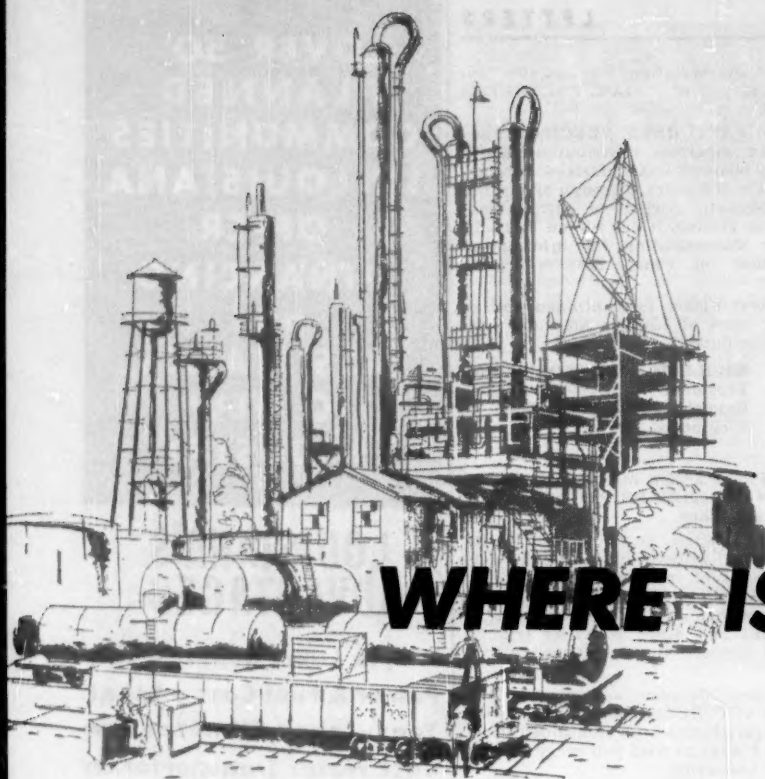
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WHERE IS INDUSTRY

Intelligent analysis of area progress is essential both to the site-seeking executive and to the industry hunting developer. Hence, *ID* is happy to provide a forum for a spirited debate on the significance of recent regional development reports.

INDUSTRIAL DEVELOPMENT has recently carried two articles which bid fair to greatly increase the incidence of ulcers among industrial development men in the northeastern quarter of the country (Isard and Fuchs, "Where is Industry Going?" in *ID* for May 1958 and Yaseen, "The Case for Decentralization," in *ID* for Sept. 1958). These articles emphasize very strongly the rate of industrial growth elsewhere in the country. While there can be no quarrel with the facts as presented by Isard and Yaseen, we must remind ourselves that rather different interpretations of some of those facts are possible. Since both authors invoke the authority of geography, it should be pointed out that geography, like beauty, may be largely in the eye of the beholder. The field has made great strides in the past few decades, but it has not yet (and may never) reach the stage where a given set of facts may be interpreted in only one way.

Our preoccupation with the tremendous growth and undoubtedly great potential of the "new" industrial areas of the United States should not make us ignore the solid achievements and

enduring vitality of the "old" Manufacturing Belt. The Manufacturing Belt may actually itself benefit from the fact that it is no longer the only significant industrial area in the country.

It must be remembered that none of the impressive statistics on growth and especially rate of growth in the "new" areas implies lack of growth in the Manufacturing Belt. There is every reason to believe that industry in the Manufacturing Belt will continue to grow—conceivably even faster than before. We all know, but sometimes forget, that a 1% increase in industry in the Manufacturing Belt means far more new factories and new jobs than a 5% increase in industry in the Southeast.

It is interesting to look again at some of the facts presented about industrial growth in the "new" areas. Many of these facts seem to go as far to conclusively demonstrate the continuing dominance of the Manufacturing Belt as they do to show the importance of the "new" areas. For instance, "In 1939, the traditional area held 69% of all employees in manufacturing establishments, but by 1958, the west and south

represented close to 40 per cent of all industrial jobs." (Yaseen, p. 17) This might be as accurately stated: In 1939, the Manufacturing Belt held 69% of all employees in manufacturing establishments and by 1958, after the widely-heralded shifts in industry, more than 60 per cent of all industrial jobs were still located in this area. (According to the largest Area Development Bulletin [Aug.-Sept. 1958] the Manufacturing Belt still accounted in 1956 for close to two-thirds of all value added.)

Again: "Every year for the past eight

able relation between actual and "hypothetical" expenditure on plant construction in some of the "new" areas than in some of the Manufacturing Belt areas. If, however, we look at the actual cash expended to create new factories and jobs, we find that some \$200 million more was spent in the Manufacturing Belt than in all the rest of the country combined and nearly 50 per cent more than in the western and southern areas whose industrial growth is being so widely discussed.

There are, indeed, a great many

by no means certain this change will take place outside the Manufacturing Belt.

For the foreseeable future, the largest and most concentrated market in the country will continue to be found in the Manufacturing Belt. It is true that markets in other areas are growing, but these areas are scattered and none of them, alone or in combination, seems likely to rival that of the Manufacturing Belt in size. Also, the fact that these other markets are scattered (say from Florida to California) means that often the total new market can be better served from a central location in the Manufacturing Belt than from a plant in any one of the new areas.

Decentralization, too, is limited by economies of scale inherent in many industries. For many kinds of firms, a single plant of the most economic size for production is sufficient to take care of their entire sales. For most of these, location central to their market still means location in the Manufacturing Belt.

Many of these same firms are among those often described as becoming "nationally footloose" as a result of their decreasing dependence on raw materials. Actually, the proportion of industries becoming *nationally* footloose may be smaller than at first appears. The fact that an industry does not depend on *raw* materials by no means makes its materials ubiquitous. For a plant which draws semi-finished materials from widely scattered sources and distributes its product over large areas, central location will remain vital.

One may share the views of Isard

STAYING?

By HOWARD G. ROEPKE

years manufacturers spent more for expansion in *each* of the states of California and Texas than all the New England states combined." (Yaseen, p. 17) This could be put on a square mile basis: Manufacturers spent for expansion in New England 2½ times as much as in California and 4 times as much as in Texas. Or: With a population no greater, manufacturers in the "soft" area of New England spent nearly as much for expansion as was spent in each of the "hard" areas of Texas and California (Isard and Fuchs terminology). Certainly both area and population are pertinent to the possibilities for industrial expansion.

Another: "During 1955, new plant expenditures were \$1.4 billion in the Southern states east of the Mississippi River, almost equivalent to the expenditure of \$1.5 billion in the Middle Atlantic Census region composed of the highly industrialized states of New York, New Jersey, and Pennsylvania." (Yaseen, p. 17) The restatement of this is obvious: In only 3 states of the Manufacturing Belt, new plant expenditures were greater than in all 10 of the Southern states.

One more: The table used by Isard and Fuchs (p. 16) shows a more favor-

reasons why industrial development men in the Manufacturing Belt should not turn in their A.I.D.C. cards quite yet. Many of the advantages which led to the early dominance of the area are either still enjoyed or, after a lapse, are again becoming important. And some of the industrial trends now discernible may lead to change, but it is



Author Howard G. Roepke has, in the accompanying report, squared off to do battle with those who discount the ability of the "old" industrial areas of the nation to maintain a healthy rate of growth. His background for authority on the point of view he holds includes having been a member of the staff of the Department of Geography at the University of Illinois since 1952, having made or advised the making of industrial potential surveys of cities in that area, and serving as a consultant on both industrial location and area development work with the Doane Industrial Development Service.

He holds BA and MA degrees from the University of Wisconsin and a PhD from Northwestern University. Dr. Roepke also is the author of a book on location factors and a number of articles.

AREA ANALYSIS

and Fuchs that the St. Lawrence Seaway will have a lesser impact than many imagine, but it must still be noted that any impact cannot avoid being a gain for much of the Manufacturing Belt. In power production, improved accessibility to foreign raw materials and low-cost shipping to distant markets the Seaway will inevitably have a measurable effect. The dimensions of the effect can be debated, but its direction is unmistakable—it can only improve the competitive position of much of the Manufacturing Belt.

While it is true that major economies have been effected in heat production, this has not prevented coal from retaining or even increasing its importance in electric power generation. In fact, recent evidence indicates that in the U. S. coal is now the cheapest available power source for the generation of large quantities of electricity. The possibility is cited by Yaseen that there may be decentralization of the auto industry in the future based on the increasing use of aluminum. If this occurs, it will almost certainly result

(as Yaseen points out) in the development of integrated manufacture at primary aluminum smelters. The three newest (and very large) aluminum smelters built in the United States have all been constructed on the Ohio River and will generate their power from coal. Thus, there may be some decentralization out of the Detroit areas, but these new branches of the industry seem likely to remain in or near the Manufacturing Belt.

Factor of Inertia

It seems likely also that the factor of inertia will operate to greatly reduce the apparently likely speed of any major shift in basic heavy industries such as steel and automobiles. Studies have shown this to be a major factor in the locational pattern of the steel industry, for example. Even after it can be demonstrated that a new location would make it possible for an industry to produce more cheaply, a change in location is by no means inevitable. With existing plant and equipment largely amortized and with supply and distribution patterns established, a new location must usually offer really major economies if industry is to move. This is particularly true in a period such as the present when the cost of new capacity is rising steeply for almost all industries.

A final note of potential cheer for areas in the Manufacturing Belt lies in the analogy between what is happening there and what has already happened in other old industrial areas like England. When industry began to be established in various parts of the Empire and Commonwealth, many predicted the imminent industrial ruin of England. In fact, England's industrial output continued to grow steadily, much of it consisting of plant and equipment for the new areas, and now some of her most profitable industries are based on trade with such newly industrialized areas. There is here also a lesson for the "old" manufacturing areas of the United States. There is reason to expect that their experience will also parallel England's in that the progressive firms willing to adapt to changing market conditions will prosper while others less adaptable may decline.

In fact, the fate of the Manufacturing Belt may lie largely in its own hands: if its components remain aggressive and dynamic, it will probably continue to dominate the industrial structure of the United States; if its areas and industries choose stagnate, its position may deteriorate rapidly.

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Historic Pattern of Growth

Comprising a 20-billion unit industry today, the nation's glass container producers anticipate annual shipments of 45 billion by 1975. A leader in the field tells here some of the background of glass packaging and the reasons why unbroken expansion may be expected in the future.

By Carl R. Megowen
President, Owens-Illinois Glass Company

THE glass container, this country's first product and the first export to England by the settlers at Jamestown, has grown from its historic beginning to a 20-billion unit of the packaging industry.

Last year the nation's glass container producers enjoyed a third straight record production year. The 20-billion unit production figure represented a steady growth from a volume of one billion in 1900. There seems no reason growth should not continue at this rate of five per cent per year compounded over the past half century. This would make glass container shipments 45 billion by 1975.

It is difficult to talk about glass containers without using a host of statistics, but figures alone do not tell the story of manufacturers' constant efforts to improve their product, and to find better ways of making containers that will bring more benefits to the glass manufacturers' customer who fills the package and the customer's customer who empties it.

In order to reach this goal, glass container manufacturers have spent several score million dollars in the last 10 years for research. A primary aim of this research is to find out everything we can about this wonderful material, which has served mankind so well for thousands of years yet still offers almost

unlimited possibilities for future development.

Despite our constant efforts to find more and better ways of using glass, we of the glass container business take pride in the distance we have traveled in the relatively few years since Michael J. Owens, one of Owens-Illinois' founders, perfected the first automatic bottle machine in 1903.

That first machine produced only 540 bottles an hour compared to present possible production of hundreds a minute. Compared with the production standards of that time, however, the new machine did the work of 162 men and reduced labor costs alone by 96 per cent.

While the volume has increased astoundingly, the glass container manufacturer also has been turning out bottles that are lighter, and at the same time, stronger than their predecessors. We realize there is much more to be done in this particular segment of the business and our research staffs are devoting much time to it.

I mentioned earlier that we are a part of one of the nation's largest industries—packaging. Just how do glass containers rank in this highly competitive and expanding field?

As often happens when something new appears, dire predictions are sometimes made about glass' future in the

packaging field. Despite new packaging materials, new fads and new fancies, however, glass containers still enjoy the same percentage of the market they enjoyed 20 years ago. This was true in 20 booming years for packaging, years in which the dollar volume rose from less than \$2 billion to more than \$10 billion.

There are several reasons why we can both hold our own and make gains against other packaging materials.

It starts right on the ground floor. The basic raw materials of glass—sand, soda ash and lime—are almost as plentiful as the ground you walk on. We can foresee no shortage of these materials.

Largely due to glass' basic composition, we can deliver containers to our customers for less than many competitive products. The economy of the glass container permits the public to have many inexpensive—but certainly necessary—products it uses every day. These products can be taken with confidence directly from the clean, protected lip of any bottle or jar.

But glass' main appeal to the food packer, the bottler or the drug, cosmetic or chemical concern is simply that the public likes to buy in glass. Consumers can see what they buy and can tell at a glance when they need to buy more.

The increased use of glass in baby

food packing alone—the percentage of baby food packed in glass containers has risen from 13 to 75 per cent since 1939—makes crystal clear the American housewife's faith in glass. She knows that glass is clean and leaves the product "clean." A glass container takes nothing from and adds nothing to its contents and it can carry almost any product to market.

Glass is good looking and adaptable. The largest cosmetic wonder sits beautifully on madame's dressing table in an artistically designed and engineered glass bottle. Vitamin pills or spices look good on the dinner table in the same glass container that brought them to market. And speaking of the market, today's supermarkets make point-of-sales punch more important than ever. Glass helps to sell the impulse buyer.

How well does the public like glass containers? Last year, for the first time, glass containers became a billion-dollar business. The breakdown is \$784 million for the container and \$274 million for closures, or tops, for the containers. The glass container and closure total represented 10 per cent of the total packaging dollar, ranking behind paper, fiber and steel but ahead of wood, plastic and aluminum. These dollar figures do not take into consideration the many glass containers—such as milk bottles and returnable beer and soft drink bottles—which are re-used many times. Glass ranks second only to paper in the number of units used annually.

The use of glass containers should continue to rise steadily in the future.

While glass containers are the major part of our business at Owens-Illinois, we manufacture other glass products, too. Kimble Glass Company, a subsidiary, produces television picture bulbs, laboratory and scientific glassware, glass building blocks and electrical insulators. Our Libbey Glass Division has been producing glass tableware for 140 years.

In addition to glass, Owens-Illinois also produces goods from forest products and from plastic. Some of the raw materials, such as silica sand and pulpwood, are furnished by company-owned plants and timberlands.

We operate 57 plants in 52 communities in the United States, Canada, Cuba and Venezuela. By product, the plant totals are these: glass container, 15; corrugated box plants, 19; Kimble, 5; paper mills, 5; Libbey, 2; closure and plastics, 4; sand plants, 4; plywood, 3; and one multiwall bag plant.

To keep pace with the growing demand for glass containers, O-I opened three new plants in 1958, including our first two outside the United States. Plants in Valencia, Venezuela, and near Havana, Cuba, supply a market that for many years has been serviced by plants in this country. In Atlanta, Ga., the world's most modern glass container plant was opened.

With quantity must also go quality and new developments. To this end Owens-Illinois maintains a technical center in Toledo, Ohio, the site of the company's home office.

At the center hundreds of scientists and technicians work for improvement in all the company's divisions. Research work at O-I is divided into two basic parts. Laboratories simulate plant working conditions in an effort to discover how present problems can be solved. Another group of men work on the future of glass, seeking to produce better and lighter ware, and to learn the whys of this amazing substance in order to develop entirely new uses for one of mankind's most versatile servants.

An example of our developments in the lighter-and-stronger department are our new no-deposit, no return beer bottles. The new bottles are also shorter, providing a savings in space for the brewer, distributor, retailer and customer.

Some new bottle designs, however, lean the other way—toward bigness. This is in keeping with the consumer's desire for king-size packages for reasons of convenience and economy.

Owens-Illinois closely follows the constant changes in the buying preferences and shopping habits of the consumer. This information is, of course, helpful not only to us but to our customers.

Some current trends are toward king-size ketchup, spices in glass, gallon and half-gallon milk bottles, non-returnable beer bottles and larger sizes of instant coffee jars, to name a few.

Food buying isn't the only thing affected by preference changes. The same is true for cosmetics, new drugs and beverages.

Our Kimble subsidiary has just introduced a new product that may help change the look of the nation's buildings. I refer to Kimble's new Thinline curtain wall system, a panel construction method especially adaptable to manufacturing plants, business offices and schools. Another new Kimble prod-

uct is a borosilicate glass known as KG-33, a "hard" glass which can withstand extreme heat differentials. Scientific glassware products made from this glass are trademarked Kimax. Kimble now is able to offer the public a single source for a complete line of scientific ware.

Thinline panels are easily attached to aluminum struts using only a screwdriver. The factory-assembled panels are made of two-inch thick hollow glass blocks a foot square. They are cemented in aluminum frames two feet high and either four or five feet wide. Edged with Neoprene gaskets, the panels are automatically sealed when screwed to the strut skeleton. O-I supplies all materials needed in the complete operation.

Libbey, long a famous name in glass, continues to produce quality tableware and everyday crystal for America's housewives and finer institutions.

Libbey's ability to mass produce quality tableware at a low cost presents today's housewife with a greater opportunity for individuality. The average-income household can enjoy a beautifully appointed table which only the well-to-do could afford not too many years ago.

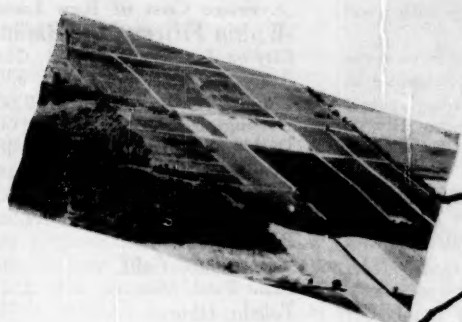
Mass production brings not uniformity, but a wider range of patterns and styles to fit every occasion. In 1958, Libbey produced its five billionth glass.

Glass must get safely to our customers and to our customers' customers. This takes paper—lots of paper. Most of our glass plants have corrugating facilities. These must, in turn, be supplied with paperboard, much of which is produced by our own mills.

Owens-Illinois' Paper Products Division operates 19 box plants to supply shipping container needs. We also manufacture a wide variety of multi-wall bags for the bulk packaging of chemicals, feed and foodstuffs.

Since all glass containers need a cap, lid or stopper, our Closure and Plastics Division allows O-I to offer a complete glass container packaging approach. Our four plants in this division form billions of metal and plastic closures and fitments yearly to provide safety and convenience to the public. This division also produces our new rigid plastic containers.

That, then is what Owens-Illinois does for a living. We produce a wide variety of products—from a little bit of the old in our hand-blown scientific glassware to the very newest of mass-produced glass and plastics.



INDUSTRIAL LAND PRICES

HOW much should you pay for industrial land? That's a question faced by every site-seeker, and it's a tough one.

In fact, we might as well admit right at the outset that you're not going to find a simple answer to this question. The very best you can expect is an educated guess.

Someone once said "any generalization is dangerous—even that one." And this goes double for quoting national averages on such complex and changeable factors as land values.

Why? We've reported some 700 different factors which influence the choice of sites. Almost all of them in some way affect the price of the land. On top of these, you have emotional factors—maybe grandpa just doesn't want to sell the old home place.

And, don't forget, there's an important fourth dimension—time. Land prices tomorrow are seldom what they are today. The trend is almost invariably up for the parcels you want.

Still, if you don't follow the land market closely, you ought to be able to learn something from a national round-up of prices paid recently for industrial land in various parts of the country. Hence, ID has queried some 100 key industrial developers to gather estimates for you.

We asked each developer to tell us, on the basis of transactions during the past year, what prices were paid for sites of two acres or larger. We asked for estimates for three distinctly different types of sites:

- Planned industrial districts or

parks complete with streets, utilities, and rail sidings.

- Tracts zoned for industry with services available, but not in planned district or park.

- "Raw" land—property with good industrial potential, on rail, utilities not on site but available, no streets or other improvements in tract.

Also, we asked for estimates on such tracts at distances of three, eight, and fifteen miles from the urban center served. Results are given in the accompanying tables.

It appears that if you want a site within three miles of an urban area you're going to have to pay about \$6300 in a planned district, about \$3800 for a zoned tract, and about

\$1400 for raw land. The survey indicates that for sites within an eight mile radius the going prices are about \$9300 per acre for districts, \$4400 for zoned tracts, and \$1200 for raw land.

Why, you ask immediately, should land eight miles out cost more than land three miles out? This, we think, is just a peculiarity of the survey, influenced by the way the questions were posed.

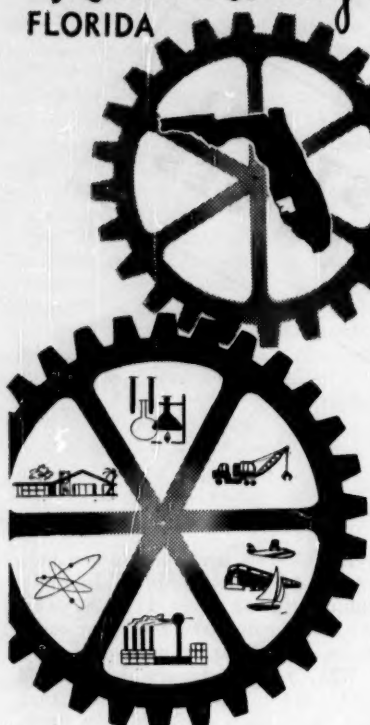
Obviously, the size of the city is a factor. Around big cities there aren't many sites within three miles. Most of the top industrial parks are more than three miles out.

If you want to go fifteen miles out, about all you'll find is raw land. And it looks like the national average is about

Average Land Costs Within Three Mile Radius

City or Area	District	Zoned	Raw
Anniston, Ala.	\$	\$	\$300
Battle Creek, Mich.	2,000	1,500	200
Buffalo, N. Y.	12,000	10,000	3,000
Burlington, Vt.	2,000	2,000	
Dallas, Texas	26,000		
Des Moines, Iowa	4,000	1,000	400
Erie, Pa.	9,000	6,000	200
Fresno, Calif.	5,000	5,000	3,500
Longview, Wash.	7,000	4,000	
Mattoon, Ill.	1,750	1,750	
New Bedford, Mass.	500	1,500	
Newport News, Va.	2,500	5,000	
Raleigh, N. C.	4,000		1,000
South Bend, Ind.		4,500	1,650
Toledo, Ohio			2,500
Approximate Average	\$6,300	\$3,800	\$1,400

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LAND COSTS

\$860 per acre for property with good industrial potential.

These averages probably have some validity as very general guideposts in evaluating sites. But we caution against taking the figure for any one city or area seriously. Obviously you need a good-sized sample for any one area to get a reliable trend at the local level.

Almost all of the expert developers contacted stressed that local variations exist and are significant. R. John Griefen, Vice President of Boston's R. M. Bradley and Company points out that "in most of New England, particularly near metropolitan areas, and because of hilly terrain, we find land scarce, costly to develop, and therefore comparatively expensive."

In many areas, temporary shortages of industrial land may send prices up, while completion of plans for new industrial districts may bring them in line. F. R. Henrekin, Executive Director of the South Bend, Indiana Committee of 100 says "we are short of good sites of 25 acres or more . . . land prices are being influenced . . . but . . . a new industrial district will help solve our problem."

Stabilizing Effect

Lloyd Weber, of the Fresno, California Chamber of Commerce, agrees. "Our non-profit industrial sites foundation has a stabilizing effect on fully improved industrial sites" reports. Charles Townsend of Burlington, Vermont reports similar experience.

Another important factor is the opening of new sites by such developments as the new interstate highway system.

Average Cost of Raw Land Within Fifteen Mile Radius

City or Area	Cost
Anniston, Ala.	\$300
Buffalo, N. Y.	2,000
Burlington, Vt.	600
Des Moines, Iowa	400
Erie, Pa.	150
Fresno, Calif.	350
Newport News, Va.	1,500
Raleigh, N. C.	500
Sacramento, Calif.	700
Saint Paul, Minn.	2,500
Toledo, Ohio	500

Approximate Average .. \$860

George Pendell, in Mattoon, Illinois, expects interstate highway construction through tracts eyed as industrial areas to boost land values.

On the other hand, cities where good sites are scarce expect the opening of new areas by the highways to improve their supply-and-demand picture, making prices more competitive. Key developers who mentioned this expectation included Everett Tucker in Little Rock and John Adams in Des Moines.

Many industry-hungry areas are developing industrial sites to sell at nominal cost by having the local government install streets and services. This is the case in New Bedford, Massachusetts, where developer Richard Hallet, Jr., says choice sites in a new industrial park will be sold at about \$500 per acre. "Otherwise, this land would cost about \$5,000 per acre" Hallet estimates.

Ray E. Tanner, of Erie Pennsylvania's development corporation predicts that industrial sites in his area will

Average Land Costs Within Eight Mile Radius

City or Area	District	Zoned	Raw
Anniston, Ala.			\$300
Buffalo, N. Y.	10,000	10,000	2,000
Burlington, Vt.			750
Cleveland, Ohio	12,000		
Des Moines, Iowa			400
Fresno, Calif.	4,500	4,500	2,000
Little Rock, Ark.	5,000		1,000
Mattoon, Ill.	1,250	1,250	340
New Bedford, Mass.	500	1,500	300
Newport News, Va.		4,000	3,000
Raleigh, N. C.		2,500	750
Sacramento, Calif.	26,000		
Saint Paul, Minn.	15,000	8,000	2,500
South Bend, Ind.			750
Toledo, Ohio		2,500	1,200
Worcester, Mass.		5,000	1,500
Approximate Average ..	\$9,300	\$4,400	\$1,200

LAND COSTS

be influenced upward by opening of the St. Lawrence Seaway. However "the cost per acre in the Erie Industrial Park will stay at the same price right through to the last acre sold" he asserts.

Population growth is another vital factor in land prices. Louis Purdey, industrial commissioner at Newport News, Virginia, says land costs there are up because "the population grew 43 per cent in the last 8 years." Purdey's solution has been to hold choice industrial park property in public ownership until it can be sold at nominal cost to incoming industry.

There are important geographic factors, too. Prices are high in Montreal, for example, because the best tracts are on an island with finite barriers to growth. There are very few sites left in San Francisco and prices are high. In many cities, such as Charleston, S. C., prices vary greatly between the downtown peninsula and sites across the river.

Speculation often is something with which you have to cope in buying an industrial site. Jack Bryan, of the St. Petersburg chamber, says recent growth has encouraged investors repeatedly to "bid up" land values.

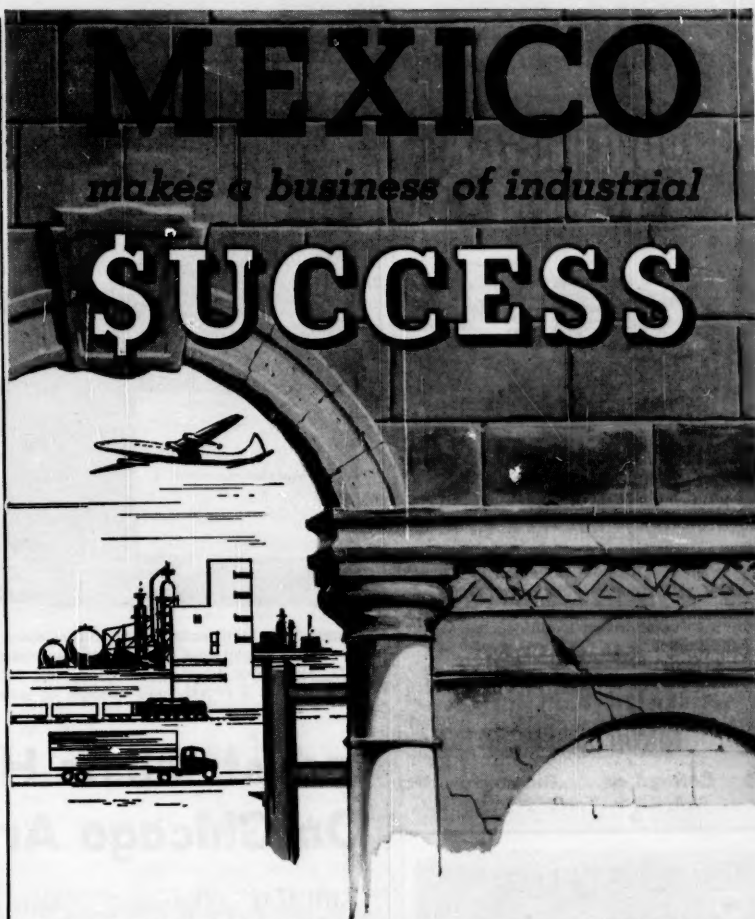
There, with a final admonition against placing significance on individual prices, is the finding of the survey. As the TV show says, you asked for it!

Pollution Abatement Conference Planned

WASHINGTON. A major Air and Water Pollution Abatement Conference under the sponsorship of the Manufacturing Chemists' Association will be held at the Netherlands Hilton Hotel, Cincinnati, Ohio, March 17-18, 1959, it was announced here.

A conference program is being planned which will be of interest not only to those from industry, but also to representatives of governmental agencies which have interests in pollution problems and their control. Details of the program, being drawn up jointly by the MCA's Air and Water Pollution Abatement committees, will be announced at a later date.

Major MCA-sponsored conferences of this nature previously were held in Houston in April, 1954, and in Washington in April, 1957.



For example, in the last 5 years, steel production has doubled. Chemical manufacture, non-existent 10 years ago, now represents a \$240 million investment. In just 3 years, sulphur production has increased more than 10 times, sulphuric acid production has increased 125% and production of caustic soda, 183%. In the same period, output of railroad boxcars has risen from 16 to 1517 units.

These and other signposts of dynamic growth have set the stage for plans to spend \$80 million for new highways in 1959—plus ambitious blueprints to improve railway, air and port facilities.

Mexico's remarkable industrial progress supports one of Latin America's most stable economies. It has been a major factor in producing an annual increase of more than 3% in per capita income between 1954 and 1957 despite a 3% annual rate of population increase—one of the world's highest.

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CHICAGO REPORT



Among those participating in the recent conference on "Plant Location in the Chicago Market" were (left to right) Paul G. Reynolds, vice president and industrial specialist, Dovenmuehle, Inc.; T. G. Ayers, vice president, Commonwealth Edison Co.; W. N. Lane, president, General Binding Corp., and H. J. (Hack) Roth, manager of industrial development, Northern Illinois Gas Co.

**Industrialists Hear Reports
On Chicago Area Advantages**

CHICAGO. "Optimism," "future growth" and "new facility plans" were expressions heard frequently here recently. Meeting in a crowded, fact-filled one-day session, about 300 industrialists wearing "names-only" badges heard plenty of reasons why their industries will continue to grow and expand—and some reasons why they should do it in Chicago.

The conference, *Plant Location in the Chicago Market Area*, was hosted by the Chicago Association of Commerce and Industry. Speakers aimed their remarks at executives currently planning new facilities. Judging from the stacks of questions and problems thrown to the speakers, a respectable number of new plants are in various stages of planning around the midwest.

A warning of basic pitfalls in site selection was outlined by James C. Downs, Jr., Chairman of the Real Estate Research Corporation. After racing through a list of important factors* in the selection of a new site, Downs stated that most firms, for which a new plant is a one-time affair, simply do not put enough real planning and business-like procedure into a new plant location. "Too often the president, especial-

ly if he is personally involved in the move, will base judgments on subjective likes and dislikes rather than scientific planning."

Help is plentiful and free to the site seeker, pointed out Ben Heineman, Chairman of the Chicago and Northwestern Railway Company. Certainly every major railroad in the United States has personnel trained to give all types of assistance regarding sites along their lines. Heineman emphasized that rails are essentially *transportation* specialists, not real estate men, but the movement of raw materials in and distribution of finished products out is one of the most vital parts of any site selection.

Pierre A. Rinfret, Vice President of Lionel D. Edie and Company of New York pointed out some facts regarding profit comparisons. Bearing down on the fact that many accounting systems have undergone significant changes due to changes in tax laws, especially in the areas of depreciation allowances, he said that a direct comparison of profit figures is misleading at best, and downright untrue at worst.

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CHICAGO REPORT

compared with, say, 1954, use the same methods of cost accounting—or use an actual 'cash flow' method of adding up the income and outgo."

Analyzing the recent business slump, which affected virtually every person in the room, Minfret noted that the picture of the past eighteen months was of the sharpest decline and subsequent upturn in the history of American commerce.

He commented that most economists see a greater frequency of these relatively violent economic cycles—with sharper variations and quicker recovery. Much of the reason for this phenomenon lies in vastly improved distribution and production control methods resulting in a more sensitive reaction to minor changes in the economy.

Unemployment figures also came under the guns. The loose figure of four million unemployed used so often these days is misleading unless you understand how the Department of Labor has been counting heads recently.

A large part of this figure will be persons temporarily laid off but still employed (formerly not counted), women over forty who are not normally considered part of the permanent work force, and girls and boys under twenty years old. There are, of course, areas still faced with unemployment in certain categories, but the total picture is much less dim, and has been, than normally supposed.

James E. Day, President of the Midwest Stock Exchange, noted that while the established money markets of the East were seeing little, if any, yearly net gain, the midwest money complex was gaining in volume rapidly and closing the gap. "There is no financing problem, major stock sale, loan or other project too big for the 'Chicagoland' money market and the Midwest."

There seemed to be no doubt as to the future growth of American industry. The question was, how well planned will it be, and will businessmen learn from the mistake of planning demonstrated in the immediate past?

Industrial Development queried several key firms participating in the meeting, notably railroad men, and noted a decidedly new kind of optimism for the immediate future. Talk of discouragement was rare, but pencils were sharpened for a closer look at money spent.

*See 1959 SITE SELECTION HANDBOOK "Plant Location Guide."

January, 1959

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- 3) New Industrial Building Corporation.
- 4) A community which affords gracious living.

Write: INDUSTRIAL DEVELOPMENT DIRECTOR
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- ☐ RICH MARKET
- ☐ GOOD WATER
- ☐ RAPID TRANSPORTATION

AT YOUR NEXT PLANT SITE?

If your requirements call for any or all of these we may have just the site you're looking for.

For complete information contact:

PERCY BENJAMIN
Manager,
Industrial Development
New Haven Railroad
Room 438A, South Station
Boston 10, Mass.



NEW HAVEN RAILROAD

Here in heart of mid-west, on Mississippi River, is Rock Island County, Illinois.



Spirit of famous Indian Chief still lives here!

BLACKHAWK was his name; a stalwart Indian Chief who roamed the midwest prairie land over a century ago. Favorite camp-site for Blackhawk and his tribe was on the bluffs of the Mississippi River. Today this land is known as Rock Island County, Illinois, (shown in map above.) In many ways the rugged spirit of Blackhawk still hovers here, now a metropolitan area of over 265,000 people.

Thus the organization that prepares this series of advertisements, to at-

tract new industry to Rock Island County, has adopted the Blackhawk name and image to identify itself. Blackhawk Industrial Promotion Association is sponsored by the people of Rock Island County who believe that this location possesses resources, markets and human skills of great value to industry.

For detailed information you are invited to write to John A. Smithers executive vice-president, Blackhawk Industrial Promotion Association, 1610 Fifth Avenue, Moline, Illinois.

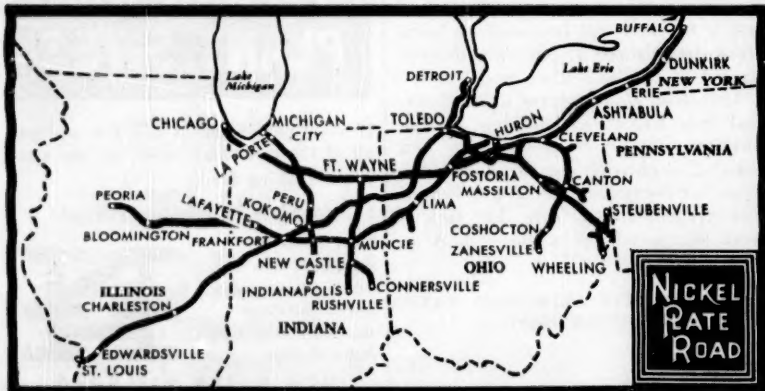


Thinking about locating a plant in Ohio, Indiana or Illinois? Then check Nick Plate's survey service.

NKP has information on available sites—plus facts on utilities, taxes, transportation and other data you'll need to know. In fact, every NKP survey is tailor-made to *your* requirements.

Let NKP know those requirements. Please contact M. H. Markworth, Nick Plate Road, 1405 Terminal Tower, Cleveland 1, Ohio. MAin 1-9000.

I had to find a plant site...
NKP SURVEYS MADE MY JOB EASIER



ID DISTRICT



"Let go, Miss Tinker, Let it go!"

Moline Group Has Unusual Promotion

MOLINE, ILL. The Blackhawk Industrial Development Company here and the new civic-sponsored Blackhawk Industrial Promotion Association are conducting an unusual two-pronged industrial development operation in this area.

The development company is an investment-real estate organization which retains capital funds subscribed in the form of \$100-a-share of stock. The company not only owns real estate but also has plans to develop industrial sites as well as to construct buildings on lease purchase or lease back arrangements.

Present assets of about \$200,000 will be augmented considerably within the next six months, according to J. A. Smithers, executive vice president. The development company is made up of six leading citizens in Rock Island County.

The promotion association has a 31-member board, representing citizens of Rock Island County and adjoining Henry County. This organization is responsible for promoting development in 30 townships and 20 communities in the two-county area on the Illinois side of the Mississippi River.

Genius, that power which dazzles mortal eyes, is oft but perseverance in disguise.

HENRY WILLARD AUSTIN
(1858-1912)

AN AREA SURVEY by

Industrial Development
and manufacturers record

THE NATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION



CLEVELAND CORRIDOR



One of the nation's "hot spots" for industrial development today is a corridor which runs eastward from Cleveland to Conneaut, flanked on the north by Lake Erie and on the south by major rail lines and trans-continental highways. Here, amid top industrial centers and huge consumer markets, lies a pleasant countryside which deserves the careful attention of site-seeking executives.



The fine harbor at Fairport is one of the best natural ports left on the Great Lakes with adjacent land available for large marine or industrial development. The land potential is exemplified in the wooded area seen at left.

NORTHEAST OHIO OFFERS:

PLUS LOCATION FACTORS

By Jouett Davenport, Jr.

CLEVELAND. For years Cleveland has been advertised as "Best Location In The Nation." Now, they've improved on the product!

That's right. You'll have to look a long way to find an area so strategically situated as the new "Cleveland Corridor." This is the name given the area which extends from Cleveland to the Ohio-Pennsylvania line, paralleling

Lake Erie, major rail lines, and new thruways. Measuring about 60 miles East-West and some 20 miles North-South, this is a section which literally "has everything" to attract big industry.

The transportation situation is probably unexcelled. The corridor is bounded on the North by Lake Erie, now on the St. Lawrence Seaway. Construction is proceeding rapidly on the

new Conneaut to Cincinnati Thruway which will be a vital link in the interstate system between Chicago and New York. And, splitting the middle of the corridor are four of the nation's top trunk-line railroads. You can't beat that for moving materials.

Surprisingly, this strategically-situated area is not yet congested. ID's editor, surveying the entire area at low



The port at Ashtabula is a strong contender for increased water-borne commerce to come with completion of the St. Lawrence Seaway, as it already has two new 2,000-foot piers completed. The harbor facilities are shown above.

AND SITES GALORE

altitude in a small airplane, was impressed with the large amount of open country.

Completion of thruway projects now underway will make it possible to travel from one end of the corridor to the other within an hour. Workers and executives can live near their plants in the corridor and enjoy the pleasure of suburban living, seldom more than a few

minutes from Cleveland, seventh largest city in the nation.

The potential of the area has already caught the eye of many leading industrial firms. The Cleveland Electric Illuminating Company, which provides power for the area, of course has a very special interest. President Elmer L. Lindseth explains why:

"The area is richly blessed with the assets that most types of industry need: Raw materials either at hand or inexpensively available, plenty of fresh water, abundant electric power at moderate cost, a large and skilled labor force, excellent transportation facilities, proximity to rich markets, and that combination of political, social and economic factors defined as 'a good busi-



The busy port at Conneaut ranks second to Cleveland as an iron ore receiving port, as it feeds ore to mills in the Pittsburgh district. Like the other harbors on the south shore of Lake Erie in the Cleveland Corridor area, Conneaut is fortunate in having extensive nearby land areas available for industrial development.

ness climate.”

Discussing the corridor's potential, CEI's Marketing Vice President R. C. Hinton noted that while approximately 25,000 acres of land in the service area already are occupied by industry, remaining for future development are upwards of 200,000 acres. Included in this are approximately 18,000 acres of land already zoned for and available for industry within reasonable raw water pumping distance from the shore of Lake Erie.

“The land available for expansion,” he observed, “will provide for a balanced growth of both industrial plants and necessary new residential developments.”

In Best Market Area

The Cleveland Corridor is located in the middle of what may be regarded as the best market in the United States for virtually any kind of industrial product. This is a kidney-shaped area

running under the Great Lakes from Western Illinois to New England.

Although it contains only 10 per cent of the nation's land area, more than 50 per cent of the country's effective buying power is concentrated here, along with 43 per cent of the total population. On the basis of value added by manufacture, the market area also contains 67 per cent of U. S. manufacturing.

The main “nerve trunk” of the rich area runs from Chicago through Northeastern Ohio to New York. It is noteworthy in this connection that since the Cleveland Corridor is situated strategically in the center of this market radius, it is the best spot from which industry can be expected to serve the whole region without being at a serious competitive disadvantage in at least part of the territory. On the basis of current population projections, this mass market will have grown tremendously by 1965, as it is expected that the number of persons here will be 14 million greater at that time.

It may be seen, then, that central location in respect to consumer and industrial markets is one of Northeast Ohio's strongest locational advantages.

Water Unlimited

A vital necessity for both population and industrial growth, water is available in virtually unlimited quantities throughout Northeast Ohio from Lake Erie, one of the Great Lakes which are among the world's greatest sources of fresh water.

Lake Erie provides this area with a flow of 130 million gallons of fine raw water daily. This huge supply of water has in great measure been responsible for the rapid development of existing industry and of the communities in the area.

This is reflected in the fact that since the end of World War II plant and equipment expenditures in the Cleveland Corridor have totaled more than \$3 billion. That growth pace can continue and even accelerate, for the water

is there to sustain it.

Currently, the area's water use is about three billion gallons a day, and it is estimated that by the year 2000 Northeast Ohio will need five to 10 billion gallons daily, still a small fraction of what Lake Erie can provide.

About 350 million gallons of the water presently consumed daily is filtered water provided by 22 water systems. Total capability for producing filtered water is now more than 480 million gallons daily, plus storage of another 380 million gallons.

In fact, Northeast Ohio's combined water systems can readily deliver more than 100 million gallons of filtered water daily to new developments in selected locations. This water can be obtained at rates which compare favorably with the lowest in the nation.

Since industrial plants on the average use eight times more raw water than filtered water, the former is much in demand. Plants located near the lake can pump their own water or purchase it from existing "raw water" utilities. It is noteworthy that the approximate cost of pumping large volumes of raw water out of the lake and 100 feet or so above the surface averages but six cents a thousand gallons. This includes both operating and capital cost.

If water is to be used for cooling and condensing purposes, as it frequently is in industry, it should have maximum temperatures of from 65 to 70 degrees, and water at the desired temperature can be obtained, even in the hottest summer months, at depths of about 25 feet approximately 2,500 to 3,500 feet, from shore. Some sections along the lake have water not above the maximum even closer to the shore.

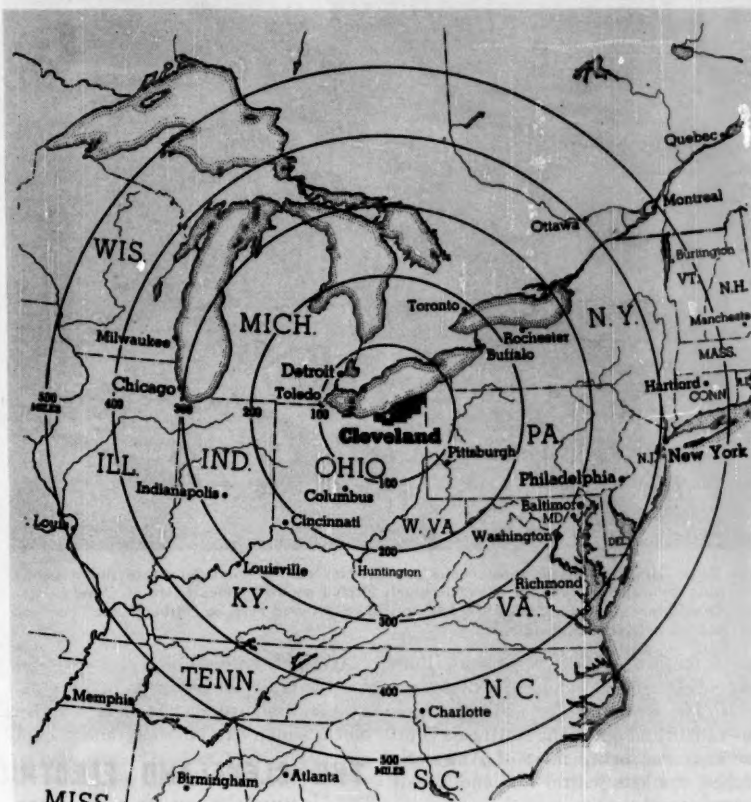
As tremendous amounts of water flow daily through the lake, the quality of the raw water is excellent, with less than 200 parts per million of dissolved solids, often under 125.

Acting, too, as a huge settling basin, the lake holds the water for a substantial time, allowing some of the solids to settle out. Thus the first-stage treatment of the raw water is performed by nature.

Unexcelled Transportation

Right at the top among the many plus factors in the Cleveland Corridor is its network of transportation facilities—water, rail and highway.

In addition to the big lake port at Cleveland, the three other major harbors are at Fairport, Ashtabula and Conneaut.



The Cleveland Corridor area, shown at the center of the map above, is situated in the middle of what may be regarded as the best market in the United States for virtually any kind of industrial product. The radii on the map indicate the area's relation to this rich market.

Northeast Ohio already is the center of Great Lakes trade, and with the completion this year of the St. Lawrence Seaway, bulk materials will be brought into the area non-stop from world-wide sources via ocean-going freighters. At the same time, exports can be shipped direct to world markets through the ports here.

Railroads serving the area are the New York Central, Baltimore & Ohio, Nickel Plate, Pennsylvania, Erie and Bessemer and Lake Erie. These lines fan out to every corner of the nation's richest market belt.

Added to these facilities and the existing system of highways will be several of America's most modern limited access freeways which are now being built.

Ohio Route 1, the Conneaut to Cincinnati Freeway, will be a multilane divided highway connecting the New York Thruway with the Ohio East-West Turnpike. It also will provide a fast, safe run to central and southern Ohio.

The Lakeland Expressway, running close to the Lake Erie Shore, will bring downtown Cleveland within 30 minutes

of chemical plants in the Fairport Harbor area.

Further, Ohio State Route 44 will connect the Lakeland Expressway with Ohio Route 1. A proposed artery—the Lake to River Freeway—will connect the Ashtabula chemical complex to the Mahoning Valley steel concentration and extend south to the Ohio River valley.

As a result of this, Northeast Ohio industry will be able to move goods quickly to east to west or north to south to any point in the country.

Concerning the highway developments, Mr. Hinton observed that the new roads are particularly important in that they will give greatly improved access to sections of the area which hitherto have not had the best transportation advantages.

For example, Route 44 will open up parts of Geauga County which have some of the best development potentials in the Corridor area, and the Lake to River Freeway will do the same for extensive acreage in Ashtabula.

To haul goods over the area's high-



The Ohio Turnpike provides direct, open routes which can substantially reduce shipping time and cost for manufacturers. For example, plants located on the southeast side of Cleveland can truck products through the Ohio Route 14 interchange, pictured here, to Pittsburgh two hours and 13 minutes quicker than before.

ways there are 150 motor truck lines providing service to all parts of the nation. The eleven major airlines which operate in and out of the Northeast Ohio communities bring most of America's richest markets within two and a half hours' travel time.

This all adds up to a transportation total that is literally the equal of any in the world.

Raw Materials Right At Hand

The raw materials right at hand in the Cleveland Corridor include a good supply of sodium chloride. Salt is available in almost unlimited supply from the Ohio Morton mine, the first deep shaft salt mine in the state, and bulk salt can be brought across the lake by cheap water transportation. Further, enormous reserves of salt are underground almost anywhere along the south shore of the lake and can be pumped up if needed by any industry located there, and high calcium brines not now being utilized are also plentiful.

Coal, necessary to many industrial operations, is available from 17 beds in southern Ohio, West Virginia and Pennsylvania, just an overnight rail haul away. An interesting development in this connection is the \$10 million, 108-mile coal pipeline which carries coal from Georgetown to the Illuminating Company's Eastlake power plant on Lake Erie. The coal is carried in the form of 50-50 coal and water slurry.

Available without limit from throughout the Great Lakes basin is limestone, another important chemical building block, which can be easily and cheaply

CLEVELAND CORRIDOR

shipped to the Cleveland Corridor. Sulfur arrives in the region by an economical water-rail combination, and when the St. Lawrence Seaway is opened, there are possibilities of all-water shipment.

High-grade silica for metallurgy refractors and the glass-making users can be had in large tonnages from pits near the very heart of the area. Also native to Ohio are sandstone, ceramic clays, gypsum, gravel and stone, as well as most eastern hardwoods and softwoods.

Available in any needed quantities, of course, are petroleum products and natural gas.

Abundant Electric Power

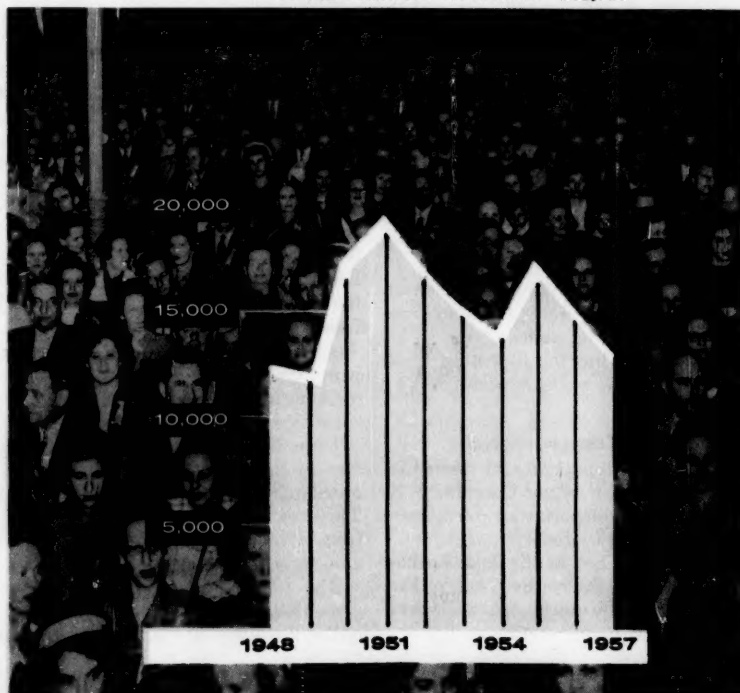
The Cleveland Electric Illuminating Company serves, as mentioned earlier in this report, the entire Cleveland Corridor area. "Plugged in" to the company's lines are more than a half million customers in 138 communities.

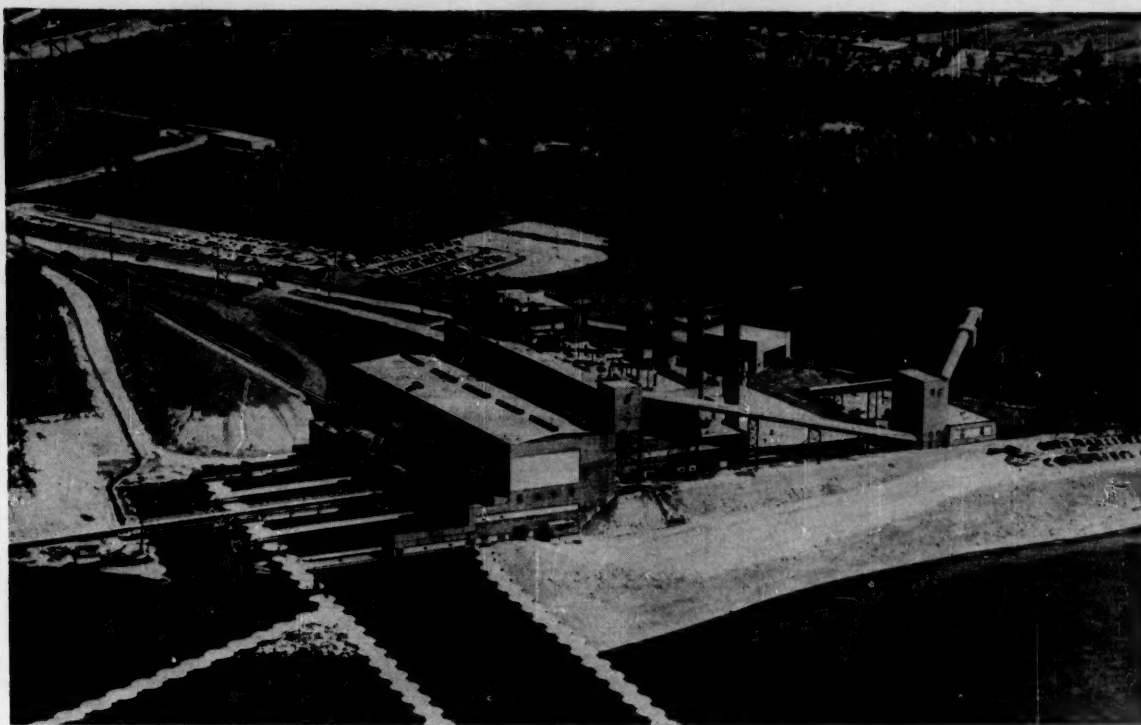
Among the facilities maintained to meet the constantly growing demand for power are four power plants, 21 transmission stations, 91 distribution sub-stations, more than 600 miles of 132,000-volt steel tower transmission lines, 35 miles of 66,000-volt underground cable, and a countless number of lower-voltage lines.

THE CLEVELAND ELECTRIC ILLUMINATING CO.

ANNUAL GAIN IN CUSTOMERS

Customers at End of 1957	530,537
Customers at End of 1947	379,877
10 Year Increase	150,660





This electric power generating station is the Eastlake Plant of the Cleveland Electric Illuminating Company. It is one of four big generating units which provide abundant power in the Cleveland Corridor area. During 1958 C.E.I. had a construction budget of \$65 million, largest in its history, to meet growing demands for electricity.

The four big generating units are the Avon, Lake Shore, Eastlake and Ashtabula Power Plants. A new 250,000-kilowatt turbogenerator has just been completed at the Ashtabula Plant, involving an investment of approximately \$37 million and greatly increasing the generating capability of the installation.

Another new unit is being added to the Avon Plant. Also with a capacity of 250,000 kilowatts, this unit will go into operation during 1959.

Altogether, during 1958 the company's construction budget totaled \$65 million, largest in its history.

The company thus is keeping pace with current and anticipated demands for residential, institutional, commercial and industrial power, and the prospective plant builder is assured that his needs will be fully taken care of in the Cleveland Corridor.

In the past the Illuminating Company's expansion program has, of course, also been constantly keyed to growth in the area, and the phenomenal development of Northeast Ohio is reflected directly in figures showing the gains made in the utility's revenues over the past decade.

For example, revenues in 1957 totaled \$118.7 million, as compared to \$61.9 million in 1948. During the same period net income climbed from \$8.07 million to \$18.90 million.

Of primary importance not only to existing plants but also to those that will be located here in the future is the fact that The Illuminating Company's forward-looking program includes participation in nuclear power projects.

It is one of the participants in Atomic Power Development Associates, the research and development group whose findings are being utilized in construction of the Enrico Fermi fast breeder atomic power plant near Monroe, Michigan.

The company also has joined with 13 other nearby utilities to form the East Central Nuclear Group. This organization proposes to undertake research and development work on a 50,000-kilowatt advanced design heavy water moderated high-temperature gas-cooled atomic reactor plant.

The experience gained from these projects will enable The Illuminating Company and the other participating companies to keep abreast of develop-

ments in the field and to solve the problems which exist in connection with building plants to produce power through the use of atomic energy.

Good Reservoir In Labor Force

Recent figures from the State of Ohio Regional Employment offices show that the area has a total labor force of approximately 830,000. Employment in the manufacturing industries is normally some 330,000, but this is subject to fluctuation, and there is generally a reservoir of workers in a number of skills available for new industry.

Of the 23,000 job classifications used by the United States Census, about 10,000 are found in the Cleveland Corridor. More than 24 per cent of the male force are rated as skilled craftsmen, as compared to a national average of 19 per cent.

Further, 29 per cent of the labor force here are semi-skilled, 11 per cent are managers, and 10 per cent are professional or technical employees.

These workers have received their training in jobs concerned with more than 2,000 product classifications which are to be found in the manufacturing






TRANSPORTATION TO EVERY PART
OF THE COUNTRY'S MAJOR
RAILROADS, 11 MAJOR AIRLINES
MORE THAN 150 TRUCK LINES

THE CLEVELAND CORRIDOR...



44

	FIVE MAJOR RAILROADS,
	150 MOTOR TRUCK LINES
	serve the area.
	ELEVEN MAJOR AIRLINES
	bring most of America's richest
	markets within 2½ hours travel time.
	THE ST. LAWRENCE SEAWAY
	will offer non-stop, deep-water
	shipping to any port in the world.

PITTSBURGH →
NEW YORK

...strategic location for industry

CLEVELAND CORRIDOR

activities in this area.

Among these classifications are such diverse items as iron, steel, automotive and aircraft parts, metal specialties, aluminum products, titanium, zirconium, copper and copper products, chemicals, machinery, plastics, rubber and rubber products, petroleum, electronic devices and instruments.

Constantly being augmented by the new crop of persons reaching maturity each year, the labor force comes from a population estimated at 1,911,080 in the four-county area. That is an increase of 21.7 per cent over the total of 1,570,852 recorded in the 1950 census.

Estimates on future population totals are for 1,986,300 persons to be in the area by 1960 and 2,200,000 by 1965.

By counties, the 1958 estimates were for 98,020 citizens in Ashtabula, 1,639,

810 in Cuyahoga, 39,270 in Geauga and 133,980 in Lake.

It is expected that by 1965 these totals will have risen to 115,000 in Ashtabula, 1,815,000 in Cuyahoga, 55,000 in Geauga, and 215,000 in Lake.

Therefore, it may be seen that new plants built in the Cleveland Corridor area in the future will have a continuously and rather rapidly expanding population from which to draw workers easily trained in a great variety of skills.

The Chemical Shore

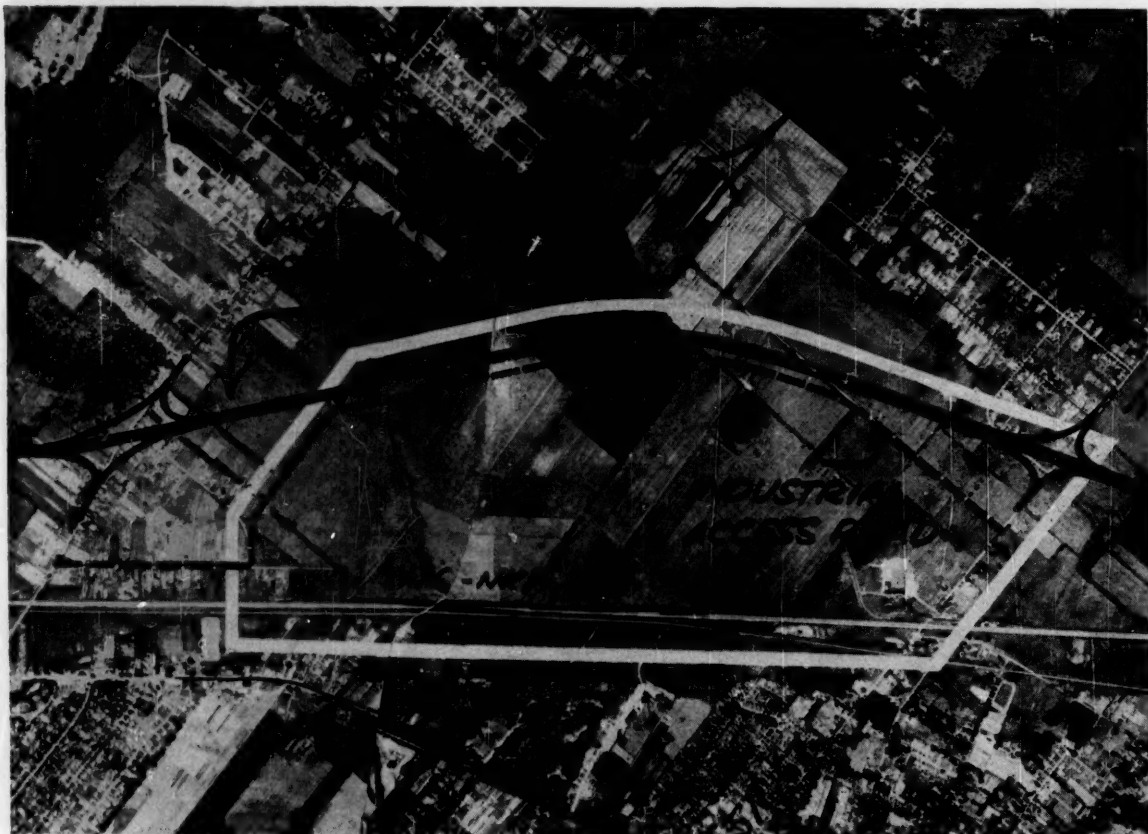
Tops in industrial importance—and potential—in the Northeast Ohio area is the 100-mile strip along the shore of the lake which, because of the complex of chemical industries that have been located there, has been dubbed "The Chemical Shore."

In fact, during a period of less than

10 years, close to \$360 million have been invested here. Even so, the Chemical Shore may be regarded as being still in its infancy, for of the huge acreage available for plant sites in the Corridor, thousands of acres are right on the Shore. This particular part of the area also gets the direct benefits of both water from the lake and lake transportation. It also is served, of course, by the other transportation facilities mentioned earlier in this report.

In the four-county area as a whole there are already some 38 major chemical producers, 13 pharmaceutical houses, and four large producers of plastic raw materials. Their varied needs for basic chemicals of many sorts provide another expanding market for current and future production of the Chemical Shore.

For water transportation, private



Prime plant site locations, in terms of thousands of acres, are readily available in Northeast Ohio. The Mentor Industrial Park, shown here, is an example. Sites in the Cleveland Corridor are zoned for industry, and there is access to unlimited water supply from Lake Erie, plus a superb transportation network.

capital interests have constructed in the very center of the Shore area two docks, each 2,000 feet long, capable of handling enormous tonnages of chemicals.

These docks tie directly into a 150-acre block of shore frontage which can be used for storage. A spur from a main-line railroad runs into the dock area. Another 200-acre parcel of land leads back into the existing Ashtabula concentration of chemical plants, providing space for a variety of developments.

Creating chemical production efficiency at its highest, the companies now operating along the Chemical Shore have used the advantages of the location to create a self-sustaining system that is remarkable in its complementary pattern.

Important to the prospective chemical plant builder is the fact that a number of other operations can be fitted neatly into this complex. And, with the constant development of new chemicals and applications for chemical products, the possibilities for continued expansion of the complex are virtually unlimited.

The story of how the self-sustaining system has been evolved is one of unusual interest. It will serve to show, too, how continued growth may be expected.

The Electrometallurgical Company, a division of Union Carbide, was the first producer in this system. The Olefins division operates a plant in Ashtabula to produce calcium carbide from limestone brought down the lakes and from coal mined in beds only an over-night haul away.

The calcium carbide is shipped next door to Linde Air Products, another Union Carbide subsidiary, which uses it to make acetylene. Close by is a plant built by U.S. Industrial Chemicals Company, division of National Distillers & Chemical Corporation. It produces metallic sodium from salt brought in from across the lake.

A ready market for the sodium is found right across the street where Archer-Daniels-Midland uses it as a reducing agent in the production of fatty alcohols. Chlorine, the by-product of sodium production, is piped to Detrex Chemical Industries which also gets acetylene from Linde.

The latter combines these chemicals to make chlorinated solvents. Both raw materials arrive by pipeline, an economical means of transportation available on the Chemical Shore.

A Detrex by-product, anhydrous hydrogen chloride, is put into another pipeline and pumped next door to Gen-



At left of the railroad track, from top to bottom in the picture, are The Illuminating Company's Ashtabula plant, National Distillers & Chemical Corporation, and Detrex Chemical Industries. On the right side are the Electrometallurgical Company power plant, Linde Air Products, the Electromet plant and General Tire & Rubber Company. These form part of the interesting complementary manufacturing complex on Lake Erie's Chemical Shore.



This sprawling operation of Diamond Alkali in the Painesville area combines a diversified production of cement, carbonates, caustics, chromates, and silicates. The company also has extensive brining activities. This fits well into the northeast Ohio industrial complex.

eral Tire and Rubber Company which combines it with acetylene from Linde to make polyvinyl chloride.

Once salt, coal and limestone have been unloaded at the start of this chain, no raw materials have traveled more than a few hundred yards, and most transportation has been through pipelines. Actually, the whole chemical concentration lies in an area less than two miles square.

Also in this concentration is Electro-

met's titanium plant, the world's largest, which uses sodium from National Distillers to reduce titanium tetrachloride. The sodium chloride thus produced goes back to National Distillers for production of more elemental sodium and chlorine.

Further, Mallory Sharon Metals Corp. has a titanium tetrachloride and zirconium tetrachloride plant which supplies their metals reduction plant with titanium and zirconium sponge.

CLEVELAND CORRIDOR

Chlorine for the production of these tetrachlorides is shipped to Stauffer by pipeline from National Distillers, and the sodium chloride by-product is returned to the latter by pipeline from Mallory-Sharon.

Chances for adding profitably to this chain are, obviously, almost infinite, as there are places for additional plants using calcium carbide, chlorine, sodium, fatty alcohols, oxygen, inert gases, hydrogen chloride and acetylene.

In addition to this, another chemical concentration has sprung up in Painesville which is 25 miles west of the Ash-tabula. Here United States Rubber Company's Naugatuck Chemical Division has a plant which receives calcium carbide from Electromet, which is combined with Diamond Alkali's hydrogen chloride to make polyvinyl chloride.

Besides Diamond's brining operations, the Morton Salt Company has a deep mine in the Painesville area, making huge volumes of salt available as a chemical raw material.

The nearby facility of Allied Chemical and Dye's General Chemical Division makes sulfuric acid which it ships to Industrial Rayon and to Diamond.

The Diamond operation combines a diversified production of cement, carbonates, caustics, chromates and silicates which fit well into the industrial complex of the entire Northeast Ohio area. Hydrogen gas, for example, goes from Diamond Alkali via pipeline to Air Products Incorporated and to General Electric.

Stauffer Chemical in nearby Perry ships carbon bi-sulfide to Industrial

Rayon. Stauffer also supplies the same chemical to Diamond which uses it to make carbon tetrachloride, returning the elemental sulfur to Stauffer.

The sulfur is used to make more carbon bi-sulfide, some of which is sent to Calhio Chemical next door. This company produces sulfur dichloride which it sends to Diamond.

Opportunities open for adding to this chain exist for erection of plants using sodium hydroxide, sodium carbonate, sodium bicarbonate, chromic acid and chromates, chlorine, hydrogen, coke and coal tar chemicals, silicates, calcium carbonate, sulfuric acid, and hydrochloric acid.

Industrial Research Important

One of the more important bases for industrial growth is research. In this connection the Cleveland Corridor area is fortunate in having extensive research activities being carried on by various industries and by outstanding institutions of higher learning.

This fact was brought out in a recent analysis made by the Market Research Unit of the Illuminating Company. In its study, the company included basic research, applied research and product development.

The report points out that basic research together with improved technology has been largely responsible for the tremendous advance and diversification of industry over the past two decades. And, during the past few years, the Northeast Ohio area has experienced its greatest growth in capital spending for research facilities. The

momentum generated during this period is still strong. Highlights of the CEI report included these:

1. About 375 companies operate some 300 separate research and development laboratories in Cleveland-Northeast Ohio. These companies represent 11 per cent of the area's 3,500 manufacturing firms.

2. More than 15,700 industrial research workers including scientists, engineers and supporting personnel are employed in research programs. This number represents 4.8 per cent of the area's normal 330,000 manufacturing workers.

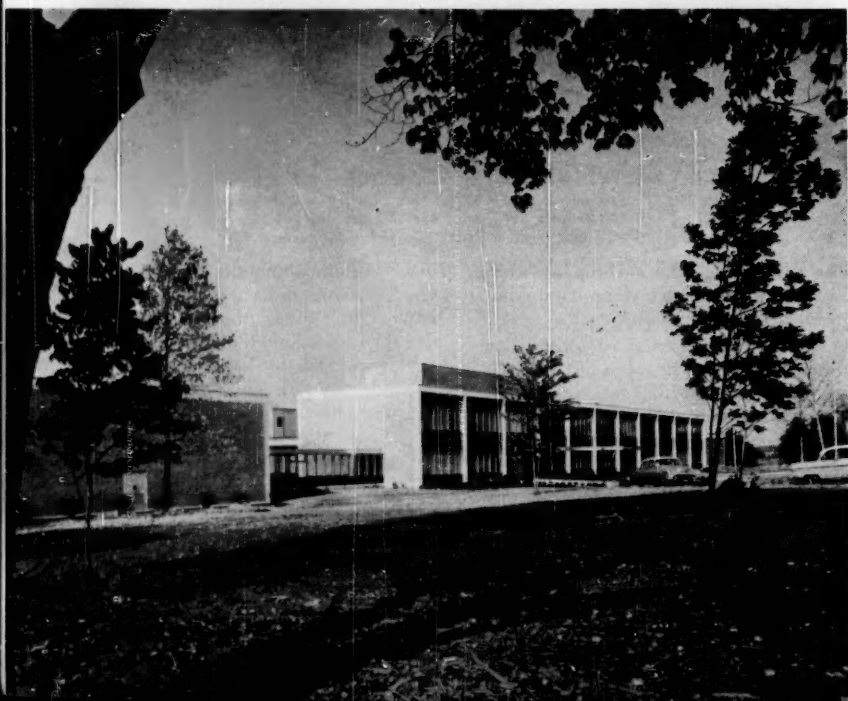
3. Based on 1957 totals, the annual cost of research is estimated at \$116.6 million, or 6.4 per cent of the area's total manufacturing bill for the year.

4. The total cost of research including wages, cost of materials, and proportionate share of overhead costs is estimated at \$184,400,000.

5. Most of the research activities are carried on by the larger companies such as Thompson-Ramo-Woolridge, General Electric, Republic Steel, Standard Oil of Ohio, Jack & Heintz, Eaton, B. F. Goodrich, Diamond Alkali, Union Carbide, Clevite and Pesco Products. These 11 companies, along with Lewis Flight Propulsion Laboratory, account for 64 per cent of the area's research personnel.

6. The industries having the largest number of research workers are in the order named: transportation equipment, chemicals, electrical machinery and primary metals.

Adding strength to the research ac-



Among the newest research laboratories in Northeast Ohio is this National Carbon Company center just south of Cleveland. With 300 employees, it is giving attention to nuclear furnaces, high-temperature refractory materials, miniaturization of electronic equipment and new electrochemical battery systems. On a site of 126 acres, the building has 175,000 square feet of space.

tivities being carried on by private industry are the programs being conducted by the educational institutions and industrial societies in Northeast Ohio.

They offer their facilities and services to private and governmental groups and in providing a ready reservoir of potential scientists, engineers and technicians. This fact is particularly significant to the prospective industrialist.

The five major institutions in this area which offer scientific or technical courses are Western Reserve University, Case Institute of Technology, Fenn College, John Carroll University, and Baldwin-Wallace College.

Among the scores of industrial societies in the Cleveland area, the activities of the American Society of Metals and the Cleveland Engineering Society serve to illustrate the tremendous growth in the area in the fields of science and engineering.

The metals group, with headquarters in Cleveland, is developing a \$20 million metals center on a 100-acre site in Geauga County. The Cleveland Engineering group has a \$1.5 million engineering and scientific center which is one of the outstanding centers of its kind in the nation.

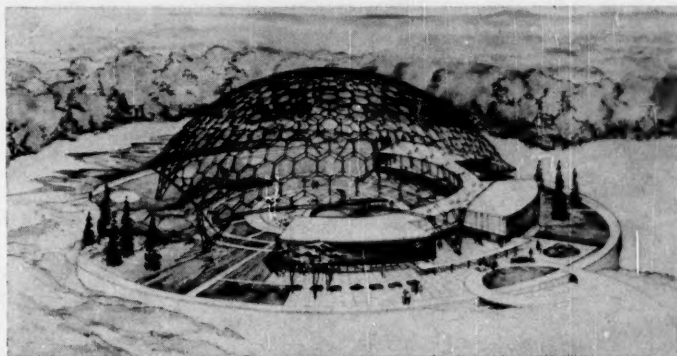
Significant progress in promoting the general health level of the area's citizenry is being made through extensive medical research activities. The research carried on in this field by Western Reserve University's School of Medicine and by five leading Cleveland Hospitals are making this area one of the leading medical research centers in the nation.

Defense Production Extensive

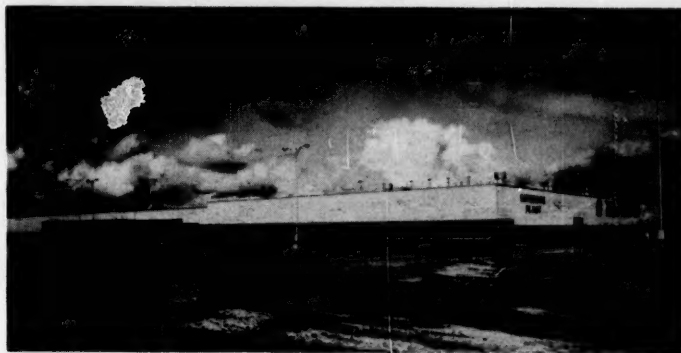
Another strong factor in the Corridor's total industrial complex is the large number of companies in the area which are qualified for missile contracts. Of these 90% are now engaged in missile work. This is pointed up in another special study conducted by The Illuminating Company.

Findings in this report showed that some 164 Cleveland-Northeast Ohio companies are qualified for missile contracts. This information is based upon a survey of area firms known to be engaged in missile work or having facilities to qualify for such work. Other findings:

1. Many of these companies are among the largest in Ohio. They are en-



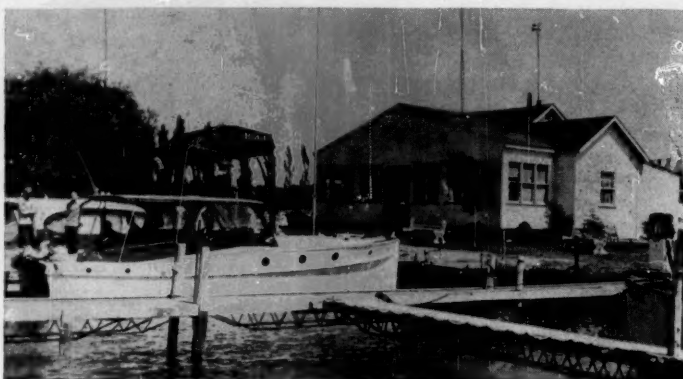
This architect's drawing is of the new headquarters building for the American Society for Metals. Under construction in Russell and Newbury townships, the geodesic structure will be ready for occupancy in mid-1959. It is on a 100-acre site and will cost \$2.4 million. A great variety of metals will go into its construction.



The True Temper Corporation plant at Saybrook, Ohio, is an excellent example of the kind of industry attracted to the Cleveland Corridor. The building has 360,625 square feet of factory space and 9,225 square feet of office space. It provides employment for some 500 persons. Saybrook produces garden, lawn and farm machinery.



The Chevrolet Division of General Motors Corporation chose Cleveland as the location of this assembly plant. The combination of water, rail and highway transportation facilities in the area, plus other factors, made an ideal situation for the plant.



The Yacht Club House and anchorage at Conneaut is typical of the recreational activities to be found along the shore of Lake Erie in Northeast Ohio. Conneaut also has a Small Boat Club and public dock.



Beach fun is available during the summer months at many points on the south shore of Lake Erie. Here bathers are shown strolling along the sandy beach in the Conneaut area.



There are a number of public recreational areas, such as the one pictured above, in Cleveland's 14,000-acre metropolitan park system. The city also offers outstanding cultural advantages, including the Cleveland Symphony and the nationally famous Drury Theater group.

gaged in research, development or production of countless products for the missile industry. Most of them are doing contract work for government agencies. Others are performing sub-contract work for missile manufacturers.

2. Qualified for missile work are approximately 74 other firms. Most of these already are producing products which could find application in the missile program. Others can quickly gear their production to serve some part of the missile industry.

3. Research and development programs are being carried out by 87 per cent of the qualified firms. That is, 142 of the 164 companies maintaining such programs.

4. Virtually every field of interest to missile agencies is covered by Cleveland-Northeast Ohio firms, and many companies qualify in a large number of fields of endeavor.

5. Additional hundreds of firms in the area have facilities and know-how to serve the missile industry. For example, the 164 companies covered in the report form a hard core of present and potential suppliers of missile products and services, but there are literally hundreds of others that have similar capability.

Plenty of Fun Facilities

In addition to the excellent industrial sites, the shores of Lake Erie offer many recreational advantages, including fine beaches, yacht clubs and fishing facilities.

The City of Cleveland, easily reached by a variety of transportation facilities from any point in the Corridor area, has been gaining increasing stature as a cultural center.

The city's symphony orchestra ranks among the nation's best four, and their Georgian-marble art museum houses one of the finest collections outside of Europe.

Popular, too, among sports fans are the well-known professional baseball team, the Cleveland Indians, and the football team, the Cleveland Browns.

Typical of the recreational activities available on the lake are the Yacht Club house and Yacht Club Anchorage at Conneaut. There is also a Small Boat Club and a public dock which have small boat hoists available to the boating public.

The Port Commission of Conneaut is currently working on a direct small boat launcher via which small boats on trailers can be run down a concrete

runway into the lake and launched.

The area also has a long stretch of the finest sandy bathing beach available on Lake Erie for many miles in either direction, and adequate parking and picnic grounds are available. Fairport Harbor has a good beach, too.

Housing construction in the Conneaut and Ashtabula areas, as well as in the Corridor as a whole, has kept ahead of demand and may be expected to continue to do so. There are many good housing sites available throughout the area, and the majority of homes already there are owner occupied.

Ashtabula has two hotels, Conneaut one, and there are many good motels throughout the area. Trailer parks are also available along the lake shore. A special committee of the Ashtabula Chamber of Commerce is active in promoting housing development in the area.

Good Medical Facilities

Modern hospitals offering all general services are located in Ashtabula, Conneaut, Geneva and Painesville. These, along with other hospitals outside the City of Cleveland in the area, are backed up by the extensive medical research facilities mentioned earlier.

These three communities also maintain paid police and fire departments with modern equipment. The Ashtabula sheriff's office furnishes police protection in the unincorporated areas. The townships also maintain volunteer fire departments with modern equipment.

All the communities in the Cleveland Corridor have modern schools, both public and parochial. Centralized schools with adequate transportation are maintained by the townships. The high school graduates can choose from several colleges and universities right in the area, and the State of Ohio has more colleges than any other state in the Union.

Tempered by the lake, the climate of the shore area offers summer temperatures which are lower and winter temperatures milder than those prevailing a few miles inland.

Over a 25-year period the average annual rainfall is 36.4 inches. The average summer temperature is 70.4 degrees, while the winter average is 25.4 degrees.

Tax Structure Is Favorable

Contributing substantially toward the growth of the Cleveland Corridor and the State of Ohio as a whole are the favorable tax structure and the friendly attitude of state government

toward industrial growth and consistent, steady development.

In general, Ohio laws and the tax structure are considered favorable to the development of industries within the state. This tax structure is particularly noted for the absence of the many so-called nuisance taxes which discriminate against certain types of business activity.

Real estate taxpayers at the local level

are protected through a state constitutional 10-mill limitation which requires that tax levies exceeding this amount must be approved by the electorate.

Ohio is essentially a home-rule state, since local officials assess all real property for taxation purposes, and tax rates are regulated by local officials and their electors.

There also is no corporate or personal state income tax in Ohio.



The new \$15 million, 22-story headquarters building of The Illuminating Company forms, with its striking modern architecture, a spectacular addition to the skyline in the heart of downtown Cleveland's Public Square.



This group comprises the hard-hitting industrial development team of The Illuminating Company. Shown at the head of the table is R. L. (Dick) DeChant, manager of the company's Area Development Department.



Top management of the progressive C.E.I. are (seated left) E. L. Lindseth, president; R. M. Besse (standing), executive vice president, and R. C. Henton, vice president in charge of marketing. Here they discuss industrial prospects.

The C. E. I. Development Team

Armed with facts, figures, charts and maps concerning every nook and cranny of The Cleveland Corridor, the highly trained staff of the Illuminating Company's Area Development Department is set to give you every possible aid in site location and plant planning.

The industrial development team of The Illuminating Company has been and is continuing to be one of the strongest factors in the constant and effective promotion of the advantages offered to industry in Northeast Ohio.

Since the close of World War II, millions of Americans have been reminded repeatedly through C.E.I. advertisements that the area is "The Best Location in the Nation."

Heading up the company's Area Development Department as manager is soft-spoken but hard-hitting R. L. (Dick) DeChant. His department with its group of development specialists is set up to render all possible aid to those contemplating location of a plant in the Cleveland Corridor.

Under the Area Development Department are two sections, the Development Section and the Municipal Section. Personnel in the former include R. C. Hartman and W. J. Pugh, Jr., senior sales representatives, and A. L. Miller and G. G. Anderson, sales representatives.

These experts, armed with a wealth of up-to-the-minute facts and figures that have been compiled about the service area, are ready to answer virtually any question that the prospective plant builder might ask.

In the Municipal Section, under the supervision of E. E. Gayman, are G. E. Thomas, senior sales representative; C. D. Laidlaw, community planning representative; W. F. Graff, street lighting consultant; K. W. Barkhauer, E. L. Raymond and J. A. Ross, Jr., sales representatives, and W. T. Spalding, associate representative.

These men are responsible for com-

munity development activities and conduct a continuous program to spur growth and improvement at the community level.

The stated objective of the Area Development Department as a whole is: "To stimulate residential, commercial and industrial growth by promoting the most productive land utilization of the area serviced by the company consistent with good commercial relations with our customers and municipal authorities and to develop and maintain a healthy economic base."

Concerning future growth C.E.I. President Lindseth comments that, "Today, with the recent recession written into history, the area is back in stride and looking for fresh fields to conquer. Northeast Ohio has no misgivings about its own future. It has shown that salesmanship can be applied to the promotion of an area as effectively as to the promotion of a commodity; and it has no intention of letting the American public—and especially American industry from coast to coast—forget where the nation's best location is."

I. D. AREA SERIES

The accompanying editorial survey of plant location factors in the Cleveland Corridor area was conducted under auspices of The Cleveland Electric Illuminating Company. Reprints are available from Richard L. DeChant, Manager, Development Department, The Cleveland Electric Illuminating Company, P. O. Box 5000, Cleveland 1, Ohio.

Billboard Planning and Zoning

In order to serve its function, an outdoor sign has to be put in a spot where it can easily and frequently be seen and read. Finding the right place for signs sometimes involves location factors that are highly complex. These factors are discussed here by an industrial planning and location consultant.

By Paul van Tassel Hedden

THE mid-twentieth century American lives by signs. How difficult it would be to go about our daily business without them! Their information, warnings, orders, and recommendations are essentially guides to living.

The street sign, the stop sign, the no-parking sign, the directional sign, the highway information sign, the red "exit" sign, the advertising sign, the business sign, and the public program sign all make a contribution to our daily life and the economic welfare of our nation. Many of these signs are taken for granted. Annoyance and frustration result from their absence or accidental or wanton destruction.

It would be at least inconvenient, if not downright impossible, to live in this modern world without signs that inform us almost unconsciously of so many daily moves.

Signs can be broadly classified as public and private. The public sign is erected on public property by edict of law or by arbitrary selection of those charged with the responsibility of displaying them. The multitude of such public signs has become a problem, especially in heavily populated metropolitan areas, for programs are presently underway to reduce or consolidate the number of directional signs to eliminate clutter and confusion in highly congested areas.

The privately owned and erected sign placed upon private property to serve both public and private purposes has become increasingly a matter of public concern. Efforts to control their size, location, illumination, message, and even color have been the subject of heated controversy before legislative bodies and, eventually, the courts. Un-

fortunately the arguments, pro and con, are not always based upon a calm appraisal of the facts but have been steeped in inflamed dogmatic and emotional reactions as to a *cause celebre*.

Like any other legitimate enlightened private enterprise, outdoor advertising

to American industry, philanthropy, government, political parties, and politicians. It is an effective means of communication, an accepted medium of legitimate advertising, and as public-spirited a citizen where it exists as any other. In 1957, it gave the equivalent



has to reach its market consisting primarily of the moving public. Whether afoot or wheeling along, the average American absorbs the passing scene which makes an impression upon him, fleeting or permanent. The goal of outdoor advertising is to serve the ever increasing urban and metropolitan market and influence its buying habits, its giving habits, and to impress with brand name identification.

The outdoor advertising industry manufactures neither consumers' products nor durable goods. It has no retail outlets, distribution warehouses, or stockpiles of raw materials. Quite simply and quietly it renders a service

of \$2.5 million worth of space to charitable institutions to spark drives, save lives, and encourage American ideals.

The industry in lieu of erecting a store building like a grocer, druggist, hardware man or a gas station erects a simple almost two dimensional structure which has been modernly designed by Raymond Loewy. It generates no traffic. It creates no litter garbage, or waste paper. It requires no public service although it pays taxes.

Like any other business the sites for outdoor advertising are purchased or leased, predominately the latter. The characteristics of the business are the

BILLBOARD LOCATION

erection of the structure followed by periodic visits of sign posters, inspectors and maintenance men, both structural and electrical. Not all signs are lighted. Poster panels have their faces illuminated by spotlights suspended from the top and focused only on the panel. Painted bulletins may use illumination as part of the design. In the "spectacular," which characterizes Times Square, lights are the primary design.

In spite of our social and economic dependence on signs, however, one in-

dustry that is increasingly in the sights of the zoner's guns is the sign business. The more mature elements of this business have earned the stature of being called standardized outdoor advertising.

This is a business of standardized displays that operates on a nation-wide basis. It makes it possible for an advertiser to have a simultaneous showing of a single design throughout the country as well as pinpointed displays in selected areas. It is one of the recognized advertising media, and, as such,

has its own audit bureau for control. The industry is composed of individual companies operating "plants" in their self-assigned territories.

In addition to the well known poster panel (billboard) which is also called a "24 sheet," there is the painted bulletin. The poster panel is 12 ft. x 25 ft. containing 300 sq. ft. of space and may be erected as a freestanding sign on the ground, attached to a wall of a building, or placed on the roof of a building.

The painted bulletin, on the other hand, is not as uniform. It may range in size from 12' x 25' to 15' x 55'. It is custom-tailored, each one being individually created through design, construction, and painting. When completed, it is trucked to a location and mounted on a standard frame. From time to time the entire display is removed, cleaned, touched up and transferred to another location.

These two devices of a recognized legitimate private enterprise are under almost constant attack, generally in the field of land-use control or zoning. Without satisfactory proof, they are termed "traffic hazards." Without expert examination, they are called unaesthetic. Without discrimination, they are linked with every device used along roadsides. Without cause, outdoor advertising plants using the best modern practice are put in the same pot with those who cling to outmoded operations and served up hot and sizzling under the collar before local planning and zoning commissions.

Sign Site Selection

If, then, this business is under the zoner's guns partly because of moves to regulate the sites for billboards, let's examine the problem of selecting such sites. The organized industry has adopted a code of practices which all progressive members of the industry rigidly follow. The code states:

We share the public interest in natural scenic beauty, parks, and historical monuments. We do not erect our advertising displays in such areas.

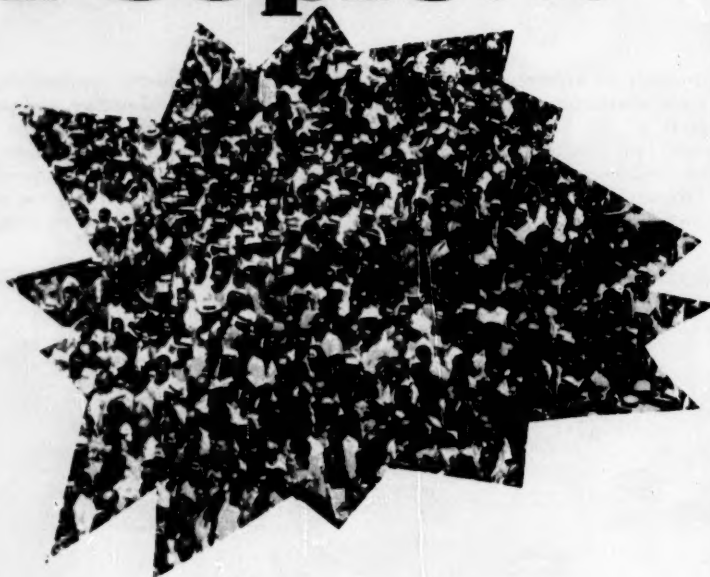
We believe in and support zoning based on sound community planning.

We locate our structures in urban areas only where business exists or is permitted under zoning.

We build displays in rural areas along highways only where other business exists or is permitted by state or local regulation.

We locate our structures with discre-

People...



... in the form of dependable employees ... and people in an ever-expanding Southern consumer market are among the many inviting factors which make Alabama desirable for manufacturing and distribution operations.

Alabama has excellent air, rail and highway facilities for communication to the fast-growing Southern, and other markets. Its Port of Mobile offers water transportation to all parts of the world.

Widely dispersed fresh water is available in copious quantity, the climate is pleasant and healthful, and a welcoming hand is extended by local and state officials.

If you are considering the expansion of your manufacturing or distribution facilities and desire additional information, write

Alabama Power Company

HELPING DEVELOP ALABAMA

Industrial Development Division • Birmingham 2, Alabama

tion and good taste with respect to frequency and concentration.

We place outdoor advertising displays only upon property we own or lease for that purpose.

We observe rigid standards of design, construction and maintenance so that our displays will be attractive.

We only display outdoor advertising which is truthful in every respect and in accordance with high moral standards.

We actively and continuously support worthy public causes through our contribution of outdoor advertising displays.

From this it can be seen that the industry is in accord with sound zoning, that they only seek to exercise the rights of any other legitimate businessman, and that they do not seek to dispoil the beauties of nature or infringe on areas devoted to parks and historical monuments.

Must Be Seen

Any sign must be seen and read to serve its function. Outdoor advertising signs are no exception. Therefore, they must be placed where they may be seen by the traveling public. When we all traveled by train, the railroad right-of-way was a popular location. Now that we are a nation on wheels, motorized wheels, the major thoroughfares enable a single sign to be seen by the greatest number of people in their daily travels. Plotting traffic volumes shows that the largest number of vehicles in any community are those which enter the Central Business District. This is one of the prime locations for outdoor advertising.

The progressive elements in the industry have abandoned the concept of "billboard alley" for some time. It was not good merchandising. But the reaction to past practices have made it difficult for the progressive elements to avoid punitive legislation directed against the recalcitrants. How can the industry be reasonably controlled? Sincere planners, zoners and urban designers continue to wrestle with the problem. Proposals such as a multiplier for front footage of a lot, or as a multiplier for the entire lineal footage in a zoning district are not satisfactory controls for determining the square footage limitation of sign areas. The principal objection is that space suitable for poster panel sites is not created thereby. It also may result in creation of a monopoly by a single landowner which

is not economically desirable.

A good site is one that has a fairly constant but total high-volume traffic flow either pedestrian or vehicular or both. It must have sufficient sight distance and angle to the stream of traffic to be readily seen and read. The best poster panel designs have only seven words or less and deliver the message at a glance.

The expansion of urban areas, the phenomenal growth of metropolitan areas, cause a constant shift in the location of good sites. The habits of the traveling public remain fairly constant. But changes in "point of purchase" from downtown to outlying shopping centers, from the densely built neighborhood concentration to the suburban store have complicated the problem. The dispersal of industry has scattered the traffic flow pattern. Changes in the mode of transportation from alternatives to the private passenger car have been encouraged by the building of new facilities for travel and for parking.

From a planning and zoning viewpoint, some industrial leaders fall into one of two types, either they think that there is only one particular plat of land that can satisfy the requirements of their operations or they feel that any place is all right. As we come to know more about the necessities of a given industry in relation to all the other elements of a comprehensive plan, it becomes easier to select a location which possesses the characteristics needed.

THE AUTHOR

A man who definitely believes in signs, Paul van Tassel Hedden has had 18 years of experience in the planning field and is now an industrial planning and zoning consultant in Chicago.

He is a former director of the Fulton County, Georgia, Planning Commission and developed the Fulton Industrial District in Atlanta. He also has been executive director of the Chicago Plan Commission and deputy commissioner of Chicago's department of city planning, along with holding other positions in the field.

Mr. Hedden is a native of Madison, New Jersey. He received his B.S. degree from Washington and Jefferson, attended the Post-Graduate School of International Studies at Geneva, Switzerland, received his law degree from Boston University Law School and was admitted to the Massachusetts Bar in 1935. He is a member of a number of professional planning organizations.



On the other hand, as we learn more about community patterns, we can relate with greater authority the place of a given activity among the land-use relationships of the city.

One has only to thumb through the yellow pages of a metropolitan center telephone directory to visualize the scope of human activity. All of the occupations are not listed there and some are disguised under the rote headings. How are they all related in a sensible land-use pattern which provides the best possible environment for each? In the past it was a fairly simple thing to divide a city into three categories—residential, commercial and industrial—and to associate them together compatibly.

Rent From Signs

Economically, outdoor advertising is one of the few sources which allow an otherwise unusable remnant of land in private ownership to produce some income, if only enough to pay the taxes. And a quarter of a million people in this country receive income from rentals paid for the use of their property.

Today . . . the advance of technology, the increase in population, the increase in distances, the decrease in travel time, have produced a socio-economic complex much more difficult to explore and with such tenuous relationships that it is possible to cripple or destroy a part of the economy inadvertently. All human endeavor occupies land. The compatibility of adjacent uses is the prob-

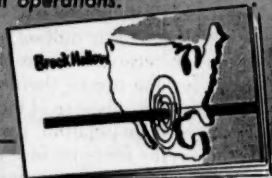


INDUSTRIAL DISTRICT

A little more than three years ago the first firms began operations in Brook Hollow. Now the number that have chosen sites in Brook Hollow has passed 125. Buildings occupied or under construction total over 3,000,000 square feet of floor space.

Firms in Brook Hollow share one thing in common—SUCCESS. Their success story is the talk of America. Brook Hollow's PLANNED advantages have won enthusiastic acceptance as the nation's outstanding opportunity in site selection.

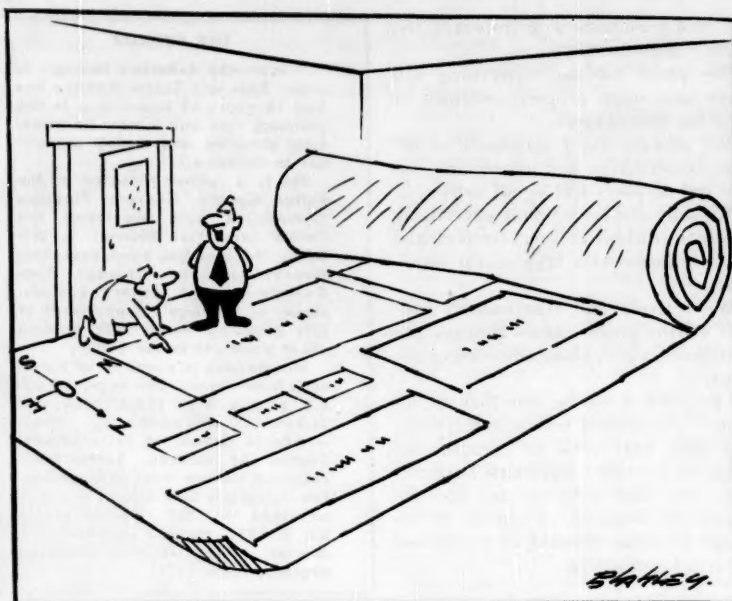
Write today for our beautifully multicolored brochure. Examine the opportunities Brook Hollow offers YOUR Southwestern regional operations.



indsor
properties, inc.

211 MERCANTILE COMMERCE BUILDING
DALLAS 1, TEXAS

BILLBOARD LOCATION



"You're thinking big about expansion plans—I like that."

lem. Urban design is a factor. But perhaps most important is the effect of improper land use on municipal finances. Unless tax rolls can be maintained and expanded in keeping with the enlarged demands of an increasing population, a city is in serious trouble.

No other industry is forced to move its "plant" as often as outdoor advertising. Ground signs must be moved when the lot is improved by a building or some other use. Wall signs are moved when the sight-line becomes extinct by new construction or deliberate planting of trees and shrubs on the adjacent lot. As each sign is removed, another place is sought to erect it.

In the broad categories of zoning, outdoor advertising has no place in residential areas. As a legitimate business it should be permitted in commercial and industrial zoning districts under proper and reasonable controls. It is an economic use of land. It should have some special relationship to "point of sale" which occurs only in non-residentially zoned areas.

Despite all problems the outdoor advertising industry has managed to cover its market. Its service to its customers has advanced. But its ability to continue is threatened by elimination described as "reasonable control." If this can be accomplished by the use of public funds no industry is safe in a free enterprise system, and no site for

a billboard will be economic. The problem of site selection which now has reached scientific proportions will cease. Advertisers will be deprived of an economic and effective medium. The art of poster design will be lost. In one sense, the whole structure of advertising is threatened. If this is endangered, the high standard of living we enjoy and all the effort which has been made to achieve it may be limited.

Any zoning ordinance which fails to provide reasonable standards for the proper conduct of legitimate business fails in its responsibility to the community. For if one reputable business can be forced to liquidate because the zoning solution is too difficult to be solved by reasonable controls, then any legitimate business may be endangered in the future by the failure of the zoners to provide a healthy economic environment for it.

Perhaps it would be a good criterion to judge a community's attitude toward legitimate business by checking the reasonableness of its controls on outdoor advertising.

The difference is slight, to the influence of an author, whether he is read by five hundred readers, or by five hundred thousand; if he can select the five hundred, he reaches the five hundred thousand.

—HENRY BROOKS ADAMS
(1838-1918)

manufacturers record

THE NATIONAL MAGAZINE OF PLANT LOCATION NEWS

EXPANSION BRIEFS

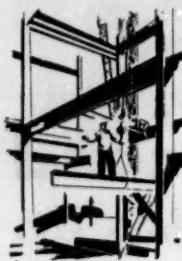
SALT LAKE CITY. A new plant to cost in excess of \$1 million will be built here by the Flintkote Company. To be erected by the company's United States Lime Products Division, the plant will produce "Miracle Lime," a patented lime product used in building construction. The new unit will bring to 65 the number of plants operated by Flintkote in the United States, Canada, England and France.

DUNKIRK, IND. Construction has just begun on a major expansion project which will increase by approximately 50 per cent the capacity of the Armstrong Cork Company's glass plant here. When completed, the expansion will provide employment for up to 250 persons in addition to the 750 now employed here.

FRESNO, CALIF. The Container Corporation of America's new plant under construction here is expected to be in full scale production by June. On a 12-acre site, the facility will have more than 130,000 square feet of floor space. It is expected that the 200 persons to be employed will draw a total annual payroll of \$1.2 million. Plant investment and inventory will exceed \$1.5 million.

WALTHAM, MASS. A new office-research center, the 84-acre Hobbs Brook Park here, is being developed by Boston Manufacturers Mutual Insurance Company. about 12 plants, averaging about 60,000 square feet of floor space, are contemplated for the park. Each building is to stand on a minimum of five acres, landscaped with flowers, shrubs and trees. Exclusive agents are R. M. Bradley & Company.

AGUSTA, GA. Continental Can Company has announced plans for the construction near here of a huge new paperboard plant. To be on a site South of the city near the Savannah River, the new facility reportedly will cost in the neighborhood of \$45 million. Initial employment is expected to total 400 persons.



NEW PLANT SUMMARY

BY BETH FRIEDMAN

The following is a summary of major industrial plants reported to **INDUSTRIAL DEVELOPMENT** during the month of November, 1958, by industries and industrial development organizations in the United States, Canada, and territories.

Number of employees is indicated by the code: A (under 25); B (25-100); C (100-250); D (250-1,000); and E (over 1,000).

ALABAMA

Albertville—G. W. Blanks Co.; metal furniture. (B)

Athens—Genco Tool Co.; precision parts for ordinance. (B)

Auburn—Southern Woodworking Industries; chicken coopers. (B)

Bessemer—W. S. Dickey Clay Co., Thos. L. Howard, Gen. Mgr.; vitrified clay & pipe. Est. date of oper. Spring 1959. \$3.5 million. (C)

Birmingham—Metal Stamping & Process Co.; metal products. (B)

Birmingham—Simon & Molignier Co.; I. E. Simon, Pres.; children's apparel. Expansion. \$600,000. (C)

Birmingham—United Motor Freight Terminal, Inc., Mrs. Ethel T. Berk, Pres.; motor terminal. \$250,000.

Detroit—Detroit Slacks; men's slacks. (B)

Florence—Southern Frigid Dough; bakery products. (B)

Huntsville—Chrysler Corp.; missile design & engineering. (D)

Mobile—Reichold Chemicals, Inc.; chemical terminal. \$1 million. (D)

Montgomery—Brunson Milling Co.; feeds. (B)

Samson—(Unidentified firm); aluminum extrusions. (B)

Sylacauga—Alabama Broilers, Inc.; poultry processing. (B)

Union Springs—Maynard Sylvest; poultry processing. (B)

ALASKA

No plants reported.

ARIZONA

Phoenix—Arizona Color Film Processing Laboratories, Inc., Lincoln Karmen, Pres. (of Scottsdale, Ariz.), 2 N. 30th St.; processing of 16mm and 35mm color film & Kodacolor prints. (Fully licensed by Eastman Kodak Co.), Est. date of oper. Jan. 1959. \$500,000. (B)

Winslow—Red Myrick of Ariz. (Div. of Triangle "V" Ranch of Winslow), Red Myrick, Supt.; men's western shirts. In oper.

ARKANSAS

Camden—The Hurley Co., Wallace D. Hurley; commercial printing. In oper. \$300,000. (B)

Camden—Reg-More Mfg. Co., Chas. Willmore, Mgr.; children's furniture. In oper. (B)

Charleston—Charleston Furn. Mfg. Co., Ray Douglas & H. B. Stucky, Hwy. 22; upholstered furniture. In oper. (B)

Conway—Southwestern Bell Telephone Co.; dial exchange. Site acquired.

Corning—Clayton Shoe Co.; shoes. Est.

date of oper. early 1959. (C)

El Dorado—Prescolite, Chas. J. Brown, Plt. Mgr., El Dorado Ind. Dist.; lighting fixtures. HO; Berkeley, Calif. In oper. \$455,000. (C)

Emmett—Huntingburg Buggy Div. (Arkla Air Conditioning Corp.), W. R. Stephens, Pres. (of Little Rock); buggies and horse-drawn equipment. Est. date of oper. early 1959. (C)

Jonesboro—Arkansas Warehouse Industries, Inc., A. M. Heringer, Jr.; grain elevator. Under constr. \$300,000.

Little Rock—International Harvester Co. (Farm Equipment Div.). \$250,000.

Little Rock—International Harvester Co. (Truck Div.) \$600,000.

Little Rock—(Office building). Est. date of oper. 1960. \$Multi-million.

Murfreesboro—Armour & Co., D. A. Nickerson, Off.; processed chickens. HO; Chicago, Ill. Est. date of oper. May 1959. \$350,000. (C)

Van Buren—Crawford Cty. Farm Bureau Co-Op; soybean processing. Under constr. \$450,000. (B)

CALIFORNIA

Alvarado—Campbell Chain Co. Bldg. permit issued.

Anaheim—Fiesta Foods Corp., G. O. Bengtson, Plt. Mgr., 1733 S. Zeyn St.; corn chips. HO; 2315 S. 15th Ave., Phoenix, Ariz. In oper.

Beverly Hills—Mithra Engineering Co., Box 1294; strain gage adhesives and waterproofing kits for room & elevated temp. use.

Burbank—General Logistics (Div. of Aeroquin Corp.), Allan B. Fredhold, Jr., Gen. Mgr., 2929 Floyd St.; cargo tiedown and control equipment. Moved from Pasadena. In oper. 14,060 sq. ft.

Canoga Park—Metro Engineering, John L. Chambers, 7349 Canoga Ave.; prototype, tool and die making. In oper.

Cucamonga—Western Metal Decorating Co., Leonard Brotzman & Theodore Peters, Cucamonga Ind. Ctr.; application of color designs and word matter to metal sheeting. Under constr. \$800,000.

Culver City—Mechtronics Corp., Victor E. Hamren, Pres., 11431 Joanne Place; pressure sensing elements & misc. specialized designs. Expansion. In oper.

Dominiques—Lacy Mfg. Co., W. G. Lacy, Mgr., 2400 E. Dominiques Ave.; Steel fabrication. Plans announced. (Now at 973 N. Main St., Los Angeles).

Gardena—Chemical Contour Corp., J. H. Langworthy, Mgr., 165900 E. Avalon Blvd.; chemical milling. Under constr. 20,000 sq. ft.

Gardena—Mouren-Laurens Oil Co., Joseph Mouren-Laurens, Owner, 641 E. Compton Blvd.; headquarters—canning of lubri-

cating oils. Moving from 1777 Grande Vista, Los Angeles. Est. date of oper. early 1959.

Glendale—Space Electronics Corp., Dr. James C. Fletcher, Pres., 1200 Air Way; electronics research & development for missile and space programs.

Glendora—Pacific Electrokinetics. (Div. of Calif. Pacific Electrokinetics), John Coke, Plt. Mgr., 329 S. Vermont Ave.; transducers and converters. HO; Campbell, Calif. In oper.

Inglewood—Thompson Products, Inc., A. J. Rothenberg, Mgr. of West Coast Labs, 802 W. Hyde Park Blvd.; engineering, research & development test facilities. MO; 23555 Euclid Ave., Cleveland, Ohio. In oper.

Lawndale—Pack-Age & Patton's Products, M. L. Patton & Norman Johnson, 16721 Hawthorne Blvd.; military commercial packaging; comp. line of wrap-pack-send anything, anywhere. In oper.

Los Angeles—Metalum Mfg. Co., Joseph Hitter, Pres. & Owner, 5450 W. Washington Blvd., (16). Flexalum alum. awnings, patios, car ports. Expansion in city.

Los Angeles—Silton Bros., Inc., Bert Silton, Pres., 3400 S. Main St., (7); men and boys' sportswear. Est. date of oper. March 1959. 63,000 sq. ft. Expansion in city.

Los Angeles—Sidney Springer Co., Sidney Springer, Pres., 816 Stanford Ave.; textile chemicals, colors, specialties. Expansion in city slated for Jan. 1959.

Mountain View—Fairchild Semiconductor Corp. (Affil. of Fairchild Camera & Instrument Co.), Ed M. Baldwin, Gen. Mgr., Bayshore Hwy. of Whitman Rd.; two-inch transistor for use in indus. & military electronics. HO; Long Island, N. Y. Plans announced. \$1 million. 65,000 sq. ft. (D)

Mountain View—Tool Research Co., Sterling Rd.; research & engineering lab. Main plant; Compton, Calif. In oper. (B)

N. Hollywood—Arnold Laboratories, Leonard G. Arnold, Pres., 7103 Laurel Canyon Blvd.; insecticides, liquid detergents, floor waxes & finishes, indus. degreasers & plastic sealing process for sealing in asphalt and concrete surfaces. Relocation from Los Angeles.

Palo Alto—Philco Corp., O. T. Simpson, Gen. Mgr., 3875 Fabian Way; lab research work. Plans announced. 41,000 sq. ft.

Palo Alto—Yuba Consolidated Industries, Stanford Ind. Park; research & development ctr. HO; 351 Calif. St., San Francisco. Plans announced. \$250,000. 18,000 sq. ft.

San Jacinto—B & B Co., Larry E. Bandick, State Hwy. 70 & Jackrabbit Trail; asphalt pl. In planning stages.

Santa Fe Springs—H. D. Hunter & Co., H. D. Hunter, Pres., 9838 Jersey St.; specialized hand tools. Relocation in city. Est. date of oper. Jan. 1959. 16,000 sq. ft.

San Jose—New Process Chem. Co., Dempsey Rd. & Ames Rd. HO; Milpitas, Calif. Plans being estimated.

Santa Clara—Sun Garden Packing Co., F. L. DiNapoli, Pres., Railroad Ave.; Bldg. purchased. \$420,000.

S. San Francisco—Zellerbach Paper Corp., 245 S. Spruce Ave.; office & warehouse. Moving from San Francisco. In oper.

Sunnyvale—Day-Brite Lighting, Inc. of Calif., Mr. Bixler, V. P., Kifer Rd. near Lawrence Sta. HDQ; St. Louis, Md. Plans announced. (D)

Turlock—Armour & Co., Henry Martens, Mgr.; poultry processing. Est. date to begin oper. 1959.

Van Nuys—Cor-Lar Mfg. Co., Arthur V.

Larsen & Sherman Corale, 7933 Gloria Ave.; experimental & production machinery. In oper.

Van Nuys—Weston Hydraulics, Ltd. (Subs. of Borg-Warner Corp.), I. E. Weston, Pres. & Gen. Mgr.; aircraft components—mfg. plt. & admin. bldg. Under constr. \$Multi-million. 85,000 sq. ft. (E)

Vernon—Standard Steel Corp. (Cryogenics Div.), Roy C. Heacock, Div. Mgr., 5001 S. Boyle; low temp. rocket fuel tanks for missile industry. Expansion in city. In oper. \$500,000.

Whittier—Owens Whittier Publishing Co., Mynatt Smith, Editor & Assoc. Publ., 133 S. Comstock Ave.; pub. hng. plt. Under constr. 32,000 sq. ft. Bldg. replacement.

Wilmington—Turco Products, Inc., S. G. Thornbury, Pres., 24600 S. Main St.; indus. chem. cleaning & maintenance compounds—hdqs. bldg.—admin. bldg., research ctr.; engineering service bldg. Under constr. \$1 million. 30-acre site. Moving from 6135 S. Central Ave., Los Angeles.

COLORADO

Denver—Bowman Biscuit Co., J. Clinton Bowman, Pres. Est. date to begin constr. Feb. 1959. \$8 million.

Florence—Fibreboard Paper Products Corp. (Subs. of Pabco Bldg. Materials Div.); plaster. Under constr.

Grand Junction—Salt Lake Hdwe. Co.; wholesale hdwe. distr. ctr. In oper.

CONNECTICUT

Danbury—Reeves Soundcraft Corp.; magnetic tape. In oper. \$500,000. (C)

New Haven—Olin Mathieson Chem. Corp., Conrad O. Currell, Act. Dir. of Res. & Dev. (Metals Div.); metallurgical research ctr. Est. date of oper. mid-1959. \$4 million.

Stamford—Columbia Broadcasting System, Inc., Frank Stanton, Pres.; research lab. In oper. \$1 million. (C)

Thomaston—Diamond Gardner Corp., J. P. Tirone, Mgr.; matches, woodenware, paperboard cartons, etc. Land acquired. Bldg. replacement.

Thompsonville—Connecticut Dye Works, Benjamin Dubin, Pres.; scouring, dyeing, carbonizing & processing wool and other fibers. Bldg. leased.

Wilton—Escambia Chem. Corp. Research Lab.; research & development. In oper. \$1.2 million. (C)

DELAWARE

No plants reported.

DISTRICT OF COLUMBIA

No plants reported.

FLORIDA

Bradenton—John P. Schwind Assoc., John P. Schwind; sewage treatment plants. (B)

DeFuniak Springs—Northwest Fla. Milk Producers, Horace Shores, Mgr., U. S. 90; dairy processing. Est. date of oper. April 1959. (B)

Deland—Cabinets, Inc.; wooden cabinets. In oper. (C)

Eglin AFB—Convair; testing & proving of aircraft. In oper. (C)

Eustis—Darby Concrete Products, John Darby, Owner, Morin & Hedrick Sts.; ready-mix concrete. Under constr.

Eustis—Florida Packing Co.; packing plant (vegetables into plastic bags). In oper. Goulds—Miller Moderns, L. E. Miller, Owner; prefab bldg. compounds. In oper. (B)

Hialeah—Holiday of Miami, Bert Snyder & Vito Spinelli, Partners; Ladies' ready-to-wear. In oper. (B)

Homestead—Pepsi-Cola Bottling Co., D. B. Smith, Ex. V. P.; bottled drinks. Est. date of oper. August 1959. \$1 million.

Jacksonville—Newth-Morris Box Corp., James Morrison, Pres.; corrugated boxes and cartons. Expansion. \$250,000. 64,000 sq. ft.

Kathleen—Allure Concrete Block Co.; concrete blocks. Est. date of oper. Jan. 1959. (B)

Kissimmee—Kissimmee Crystal Water Co., R. H. Cole, Mgr., Bldgs. T191 & T200, Municipal Airport; bottled spring water. In oper.

Leesburg—Rawling & Co., W. J. Rawling, Partner; mobile homes. In oper. (C)

Miami—Textiles Products, Inc., 5601 N. W. 36th St.; factory & Whse. In oper. \$250,000.

Orlando—The Martin Co., Edw. L. Uhl, V. P.; research & development. Expansion. 100,000 sq. ft. (D)

Panama City—Gulf Engineering & Marine Corp.; steel tanks and marine boilers. In oper. (B)

Plant City—Adolf J. Mainzer Co., Inc., Adolf J. Mainzer, Pres.; glazed fruits & preserves. (B)

Pompano Beach—Joseph H. Fox & Co.; steel fabrication.

Sarasota—Workman Television, Inc., Henry Workman, Owner; TV, radio & electronic parts. Est. date of oper. May 1959. (B)

Tampa—Dicks-Armstrong-Pontius, John N. Dicks, Pres., 210 N. 12th St.; DAP putties and caulking compounds. In oper.

Tampa—Tampa Electronics Corp., Louis Rubin, Pres.; electronic components. Est. date of oper. Jan. 1959. (B)

Winter Haven—U. S. Fruit & Vegetable Products Laboratory, Dr. M. K. Veldhuis, N. 6th St.; research to prove new utilizations for fruits and vegetables. In oper. \$740,000.

GEORGIA

Americus—Americus Times - Recorder, James R. Blair, Ed. & Publ., 415 W. Forsyth St.; newspaper plt. Moved from Windsor Ave. In oper.

Atlanta—Atlanta Merchandise Mart, Peachtree & Harris. In planning stages. \$11 million.

Atlanta—Georgia Power Co., Peachtree & Baker. Plans announced. 15-20 floor office bldg.

Atlanta—Jones & Laughlin Steel Corp. (Wire Rope Div.), Kenneth E. Adams, Whse. Supvr., 520 Petalume Place, N. W., (18). Warehouse. In oper. 7,500 sq. ft.

Augusta—S. H. Kress & Co.; warehouse (to be distr. ctr. for Southeast). Under constr. \$400,000. (B)

Cartersville—Delene Lingerie, Inc. Chamblee—American Cyanamid Co. Consolidation of regional operations in new 42,000 sq. ft. office & whse bldg.

Ellaville—Champion Home Bldrs. Co.; mobile homes. HO: Dryden, Mich. Plans announced. 39-acre site. (B)



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Glider: 5' high, 4' wide, 3' deep.
Glider "700": 4' high, 2' wide, 2' deep.
Glider Cabinet: 52" high, 34" wide, 32" deep.

CONSTRUCTION

All steel

FINISH

Grey enamel

CAPACITY

Glider: 1800 prints, 24"-48" wide.
Glider "700": 700 prints, 18"-24" in width.
Glider Cabinet: 1,000 prints, up to 30" wide.

5-POINT OPERATION

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- Loosen the three thumb screws.
- Insert or remove plans.
- Tighten thumb screws.
- "Glide" plan holders into channels.

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New dormitories, Medical College of Virginia, Richmond.

Architects: Mittelbush and Tourtelot, A.I.A., Chicago, Ill.
Associated Architects and Engineers: Baskerville and Son,
Hankins and Anderson, A.I.A., Richmond, Va.
General Contractors: Goode Construction Corp., Charlotte, N. C.

In the new dormitories at the Medical College of Virginia, the use of Solite lightweight masonry units and structural concrete provided many qualities of prime importance in schools and dormitories.

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NEW PLANTS

Tifton—Peerless Woolen Mills (Subs. of Burlington Industries), John H. Hutcheson, Jr., Chm. of Bd. Tifton-Albany Hwy. Est. date of oper. 1959. 175,000 sq. ft. (D)

Waycross—Southland Pecans, Inc., M. M. Monroe, Jr., Memorial Dr.; Processing of pecans. In oper. (B)

HAWAII

Honolulu—Honolulu Magnetic & Seismological Observatory, Lt. G. E. Haraden, Ewa Beach; nerve ctr. for magnetic observation and the heart of the seismic seawave warning system. Est. date of oper. Dec. 1959. \$400,000.

IDAHO

No plants reported.

ILLINOIS

Belleville—T. J. Gundlach Machine Co., Theodore J. Gundlach, Pres., Old St. Louis Dr. HO: 226 Centreville Ave., Belleville. Will also house MJM Co. (Subs.). Est. date of oper. Feb. 1959.

Bensenville—James B. Clow & Sons, John Madden, Pres.; cast iron pressure pipe. In oper. \$6.5 million. 100,000 sq. ft.

Chicago—Cuneo Press, Inc., Raymond P. Fischer, Ex. V. P.; de-inking of waste paper & production of pulp. Est. date of oper. 1960.

Chicago—Johns-Manville Corp. (Dutch Brand Div.), E. F. Boyle, V. P. & Gen. Mgr. of Div., between 77th & 78th Sts.; pressure-sensitive tapes, adhesives & related products. In oper.

Chicago—Libby, McNeill & Libby, Chas. S. Bridges, Pres., 115 St. & Ashland; meat processing, can mfg. Moving from Chicago Stockyards. Est. date to begin constr. Spring 1959. \$10 million. 600,000 sq. ft.

Paxton—Electronic Components Corp., Joseph Prietula, Mgr.; electronic parts for radio & TV industry. Main plt.: Chicago, Ill. Under constr. 22,000 sq. ft.

Peoria—Sealtest, Inc.; ice cream plant. In oper. \$Multi-million.

Spring Grove—(Unidentified firm); electronics, incl. alarm clocks. Plans announced. (D)

Waukegan—National Gypsum Co., Leonard L. Hank, V. P. (of Buffalo, N. Y.); wallboard, laths & plaster. Est. date of oper. July 1959. \$10-15 million. (D)

INDIANA

Connerville—Design & Mfg. Co.; plastics & metal products.

Michigan City—Brown Trailer Div. (Clark Equipment Co.), George Spatta, Pres., U. S. 2; aluminum trailers and cargo van bodies. Under constr. \$1 million.

IOWA

Bedford—Lucas Products Co.; feed. In oper. (B)

Dubuque—Flynn Read-Mix Concrete Co., Area "A"; plant & cement terminal. 5-acres.

KANSAS

Columbus—Nuttall of Columbus, Inc., Mr. Nuttall, V. P. & Gen. Mgr.; aluminum items. Moving from Joplin, Mo. In oper. (B)

Great Bend—Marlette Coach Co.; trailer houses. HO: Marlette, Mich. Plans announced. (C)

Kansas City—Long-Bell Div. (International Paper Co.), L. G. Everitt, Gen. Mgr. of Retail Dept., Fairfax Ind. Dist.; warehouse & office bldg. In oper.

Kansas City—Reichold Chemicals, Inc.;

formaldehyde. Expansion. Est. date of oper. April 1959. \$500,000.

Muncie—Griffin Wheel Co., 7155 Kaw Dr. In oper. (C)

Olathe—U. S. Civil Aeronautics Administration; air traffic control center. Plans announced.

Topeka—E. I. du Pont de Nemours & Co., Inc., Hunter F. Lewis, Plt. Mgr., Box 481; cellophane. In oper. (D)

Wyandotte County—Mid-West Durox Co., Richard H. Craig, Pres.; foreign-patented, light-weight concrete bldg. materials. HO: Colorado. Est. date of oper. Jan. 1959. \$1 million. (B)

KENTUCKY

Calla—South East Coal Co.; coal cleaning & preparation plant. Under constr. (B)

Hamilton—(Glove plant), Shuler Ave.; indus. gloves. In oper. (B)

Lebanon—Marion Electronics, Inc., Maynard Petersen, Plt. Mgr.; tape recorders. Plans announced. (D)

Lebanon—Swift & Co.; cheese. Est. date of oper. May 1959. \$275,000. (B)

Luzerne—Greenville Chair Co., Inc., Walter Wood, Partner (of Greenville); upholstered chairs. Est. date of oper. May 1959. (B)

Louisville—U. S. Naval Ordnance Plant; document storage bldg. In oper. \$927,000. (B)

Murray—Murray Sand Co., Taz Ezell; processing of high-purity silica. In oper.

Versailles—International Paper Co.; milk cartons. Plans announced. \$500,000. (C)

LOUISIANA

Chauvin—Terrebonne Fisheries, Inc., fishmeal. Est. date of oper. Jan. 1959. 15-acre site.

Weeks Island Field—Shell Oil Co.; natural gas processing and cycling plt. Plans announced.

MAINE

No plants reported.

MARYLAND

Baltimore—Maryland Separator Co.; bulk flour distr. terminal. HO: Hopkins, Minn. Under constr.

Frostburg—Cumberland Undergarment Co.; women's slips. In oper.

Whiteford—McCorquodale Color Card Co., Inc., Rte. 136; color cards for paint companies. In oper.

MASSACHUSETTS

Boston—Schlitz Distributing Co., Chas. W. Sands, Mgr.; distribution and warehousing of beer and ale. In oper. \$400,000. 31,000 sq. ft. (B)

Braintree—Continental Baking Co.; bakery products. Est. date of oper. Spring 1959. 50,000 sq. ft.

East Natick—Ewen Knight Corp., Dr. Harold I. Ewen, East Natick Ind. Park; lab facilities. Under constr. 30,000 sq. ft.

Needham Heights—Wm. Carter Co.; knit underwear & sleepwear—office bldg. In oper.

Needham Heights—The Gabriel Co. (Production & Assembly Div.), Chas. W. Coleman; microwave & parabolic antennas—purchasing & estimating divd. relocated. 5,600 sq. ft.

Newburyport—CBS-Hytron. Plats. formerly at Salem, Danvers & Newburyport consolidated in new plt. in Newburyport. Mechanical and electronic equipment.

N. Adams—Pfister Alum. Co., Fred W.

Pfister, Pres.; aluminum products. Est. date of oper. early 1959. (D)

Pittsfield—General Elec. Co.; elec. products. Expansion plans announced. \$47,000,000.

Salem—Signal Mfg. Co., Salem Ind. Ctr.; floor polishers, small motors, auto accessories. Now located in Lynn, Mass. Three plants to be consolidated in Salem.

South Lee—Hurburt Paper Co. (Subs. of Mead Corp. of Ohio), E. A. Sitzler, Mgr. In oper. \$5 million. (C)

W. Concord—International Business Machine Co. Under constr. Est. date of oper. early 1959. 25,000 sq. ft. (B)

Westfield—International Harvester Co., Jct. of Rte. 10 & Mass. Turnpike; machinery-warehouse. Under constr. 40,000 sq. ft. (B)

Woburn—Mason Products, Inc.; water-cooling towers. Moved from W. Concord, Mass.

MICHIGAN

Ann Arbor—Bendix Systems, Inc., Dr. Russell O'Neil, Gen. Mgr.; research lab. Plans announced. (D)

Detroit—Michigan Cons. Gas Co., Henry Tuttle, Pres. Utility. Plans announced. \$20 million.

Detroit—Parke, Davis & Co., H. J. Lloyd, Pres.; cancer research. Plans announced. \$1 million.

Kalamazoo—Brunswick-Balke-Collender, Joseph W. Scalise; school equipment. In oper. \$4 million. (C)

Lansing—Universal Steel Co. of Michigan, James Shapiro, in charge; steel products—warehouse. Plans announced. \$250,000.

St. Joseph—Continental Can Co., C. A. Bomba, Personnel Mgr.; paper products, containers. Plans announced. \$1 million.

S. Lyon—Smith Products, Chas. A. Smith, Pres.; aluminum fabrication, insulation material. Under constr.

MINNESOTA

Minneapolis—General Mills, Inc., C. H. Bell, Pres.; research ctr. Est. date of constr. Spring 1959. \$Multi-Million.

Minneapolis—Ziegler Co., S. 94th St. & Interstate Hwy. 390; construction and indus. equipment—office bldg. In oper. \$1 million plus.

MISSISSIPPI

Ackerman—International Paper Co.; pulpwood yard. In oper.

Batesville—Big M Metal Products Co.; outdoor metal furniture. Est. date of oper. Sept. 1959. \$1 million. (C)

Bruce—Schoona Mfg. Co.; Est. date of oper. 1959.

Cleveland—Bill Johnson Steel Corp.; metal products—fabricated steel tanks. In oper. (B)

Flora—King Lumber Co.; milled furniture pieces. Est. date of oper. Jan. 1959. \$400,000. (C)

Grenada—Pioneer Provision Co.; meat processing. In oper. (B)

Louisville—Pet Milk Products Co., Glen Fulton, Mgr. Purchased Winco Dairies.

Natchez—International Paper Co.; rayon pulp mill. \$2.2 million. Expansion.

Nettleton—Siesta Furn. Mfg. Co., Van Riley & Royce Moody, Plt. Mgrs. Establishing 2nd plt. here. 30,000 sq. ft. (C)

Picayune—Barnett & Jaffe, Morris Barnett, Partner, Nolan-West Bldg; camera projectors, sewing machine cases. HO: Phila., Pa. In oper. (B)

Tupelo—Hoerner Boxes, Inc., F. R. Hamilton, Gen. Mgr.; corrugated boxes. Est. date of oper. Spring 1959. \$250,000. (B)

Waynesboro—Northern Elec. Co., E. P. Russell (of Bay Springs, Miss.); electric blankets. Est. date of oper. June 1959. \$1 million.

Winona—Women's Windon Ind. Plt., Chas. Lynes, Plt. Mgr.; McGregor sports-wear. In oper. \$300,000. (D)

Yazoo City—(Paper bag plant). To be blt. by First Miss. Corp. \$1 million. (C)

MISSOURI

Clayton—Coronet Building; office bldg. Under constr. \$1 million. 53,000 sq. ft.

Clinton—Brookfield Uniforms, Inc., Don Lockwood, Sls. Mgr.; bakery driver & letter carrier uniforms. (B)

Conway—Sea Fury, Inc., Jewel C. Benage; fiber glass boats. Est. date of oper. Jan. 1959. (B)

Crestwood—Custom Engineered Plastics Co., R. A. Karasek, Pres., 1173 Reco. In oper.

Cuba—Cuba Mfg. Co., John V. Fleming, Pres.; metal lockers, filing cases. (B)

DeSoto—Better-Bilt Mfg. Co.; mfg. & finishing of metal products.

Dexter—Monarch Feed Mills, Inc., Yewell Jackson; feed. In oper.

E. St. Louis—E. St. Louis City Lines, 10th & Converse Sts.; office & garage facilities—bus storage, repair & maintenance. Under constr. 40,000 sq. ft.

Gallatin—Robertson & Co.; barrel head-ings. (B)

Mexico—North American Refractories. Expansion plans announced.

Oakland—Air Control Products, Elmwood & Page; alum. doors, screens & ventilating equipment. HO: Miami, Fla. In Oper.

St. Louis—American Vitri-fied Products Co. Has purchased 17 acres for consolidation and expansion of its facilities.

St. Louis—Big Boy Mfg. Co. (Subs. of H & B American Machine Co.); portable home barbecue equipment. HO: Burbank, Calif.

St. Louis—Blanton Co., 3400 N. Wharf St.; dock to be used for movement of vegetable oil by barge. Permit applied for.

St. Louis—Essex Wire Corp., 5959 St. Louis Ave.; warehouse & office bldg. In oper.

St. Louis—Evans & Howard Div. (W. S. Dickey Clay Mfg. Co.); plant & office space. Plans announced. \$300,000.

St. Louis—H & H Machine & Motor Parts Co., Swan Ave.; warehouse. Under constr. 40,000 sq. ft.

St. Louis area—LaTrobe Steel Co., Frederick A. Allison, Jr., Mgr.; branch office. Plans announced.

St. Louis—McDonnell Aircraft Corp.; polysonic wind tunnel & thermo-dynamics Lab. Est. date of oper. Spring 1959. \$5,137,000.

St. Louis—Paramount Liquor Co., 5050 Kemper; office & warehouse facilities. In oper. 60,000 sq. ft.

St. Louis—Russell-Miller Co., Opposite foot of Mill St.; loading docks and grain storage tanks. Permit applied for.

St. Louis—Setlich Sign Co., 1788 N. Lindbergh Blvd.; warehouse, office & lumber storage space. 28,500 sq. ft. leased.

Springfield—Queen City Lumber Co.; plant & lumber yard, 5 plts. to be blt. \$275,000.

NEW PLANTS

MONTANA

No plants reported.

NEBRASKA

No plants reported.

NEVADA

Reno—Nevada State Journal—Reno Evening Gazette, Chas. H. Stout, of Reno Newspapers, Inc., Church Lane; newspaper plt., UPI Bureau. Constr. est. to begin early 1959. \$2.5 million.

NEW HAMPSHIRE

Concord—Sprague Elec. Co.; transistors & special type capacitors. HO: North Adams, Mass. Expansion planned.

Keene—Miniature Precision Bearings, Inc. \$300,000. Expansion completed. (D)

Lebanon—Miniature Precision Bearings, Inc. (Split Ball Bearing Div.). Under constr.

NEW JERSEY

Carteret—Continental Can Co., Peter P. Wotjul, V. P. & Gen. Mgr., Blair Rd., Carteret Ind. Ctr.; fiber drums. Est. date of oper. mid-1959. 175,000 sq. ft. (C)

Closter—Kieckhefer-Eddy Div. (Weyerhaeuser Timber Co.); paper containers. Est. date of oper. Spring 1959. 140,000 sq. ft. (C)

E. Rutherford—DuBois Co., E. Rutherford Ind. Park; institutional & indus. cleaning compounds. HO: Cincinnati Ohio. In oper. \$1 million. 53,022 sq. ft.

Englewood—Ranno Printing Co., Rocco Ranno, V. P. (of Teaneck, N. J.), 18 S.

Dean St.; Magazine, book & job printers. Moved from New York City.

Fair Lawn—Cleveland Container Co., Chas. Barton, Mgr., composite cans, tubing & cores. In oper. (C)

Fair Lawn—Lea & Perrins, Fair Lawn Ind. Park; sauces. Plans announced. (C)

Fair Lawn—National Biscuit Co., George H. Coppers, Pres., Fair Lawn Ind. Park; crackers & cookies. In oper. \$15 million. (E)

Garfield—Manhattan Shirt Co., Industrial Park. Moving from Paterson, N. J. \$3 million.

Hillsdale—American Can Co., Wm. C. Stolk, Pres.; coil processing ctr. In oper. \$32 million.

Livingston—Microlab, Harry Augenblick, Pres., Rte. 10; coaxial components & test equipment. Now located at 71 Okner Parkway. Constr. to start soon. 15,000 sq. ft.

S. Brunswick—Victor Steel Products, Inc., Daniel C. Mason, Pres., S. Brunswick Twp.; custom steel products, incl. metal tool booths for turnpikes & other toll facilities. Under constr. \$3 million. (C)

Swedesboro—California Packing Co., Locke Ave.; cans. Under const.

Wayne—Industrial Metal Co., Frank Pinchel, Exec., Old Newark-Pompton Turnpike; precision metals. MO: Clifton, N. J. Est. date of oper. Jan. 1959. (C)

W. Carteret—Metro Glass Co., Inc. (Subs. of National Dairies, Inc.), E. M. Turner, Pres., Carteret Ind. Ctr.; bottles & jars. Under constr. (D)

W. Long Branch—Electronic Associates, Inc., Lloyd F. Christianson, Pres., Rte. 36; analog computer—plant and offices. In oper. 61,000 sq. ft.

NEW MEXICO

No plants reported.

NEW YORK

Amsterdam—Little Dude Trailer Co., Inc., Edw. McKnight, Plt. Mgr.; assembly of boat, rental & utility trailers. HO: Ft. Worth, Tex. In oper. (B)

Cairo—Atlantic Knitting Mills, Inc.; textiles. (B)

Chester—Chester Litho, Inc.; lithographing. (C)

Kingston—Ulster Tool & Die Corp., Frank Falatyn, Pres., Hurley Ave.; tools, dies, jigs, fixtures, experimental work, design and bldg. of spec. automatic machinery and precision model parts. In oper.

Seneca Falls—Finger Lake Handcraft, Inc. (Subs. of Seneca Knitting Mills, Inc.), Francis J. Souhan, Pres.; handsewing—leather on slipper sock. MO: Canadaigua, N. Y. (B)

Syracuse—Cast-O-Matic Corp., J. J. Punke, Pres., Syracuse Ind. Park; diecasting. In oper. (C)

Tarrytown—World Book Co.; consolidation of five units operating in Yonkers & Tarrytown. HO: Yonkers, N. Y. Planned \$500,000.

NORTH CAROLINA

Dallas—Dallas Sportswear, Inc.; ladies' sportswear. (C)

Edenton—(Unidentified firm); knitting plt. Under consideration.

Granite Quarry—Martha Togs, Inc. (B)

Henderson—(Unidentified firm). Under consideration. (C)

Hickory—Catawba Dairy, Inc. Chas. D. Coleman, Plt. Mgr., Hwy. 70-64-321 & 4th St. Dr., S. W.; milk and ice cream processing. In oper. (Relocation in city).

Hickory—Old Dutch Hosiery Mills, Inc.; girls' socks. (B)

High Point—Arthur Chorost Co., Inc., Arthur Chorost, Pres., 300 Mallory St.; upholstered furniture. HO: New York City. In oper. 20,000 sq. ft. (B)

Rockingham County—Union Carbide Corp. Site selected for future construction.

Roxboro—Crown Mfg. Inc., Louis Hirsch, Off., Durham Rd., alum. sidings for houses and other bldgs. HO: Crown Alum. Co., Pgh. Pa. Est. date of oper. early 1959. \$263,000. (B)

Salisbury—Ernest Wiemann Iron Works, Ernest Wiemann, Owner, New Interstate Hwy.; wrought iron furniture. Under constr. \$500,000.

Southern Pines—Fletcher Southern Inc.; textile machinery & sps. (B)

Thomasville—Singer Hosiery Mills, Inc.; men's, children's, misses' hose. (C)

Troy—Troy Industries, Inc., Fred L. Taylor, Pres.; trailer houses. Est. date of oper. Jan. 1959. (C)

Wilmington—Allied-Kennecott Titanium Corp., Roy Largent, V. P.; titanium HO: Syracuse, N. Y. \$Multi-million. Opt. on to buy 120 acres field.

NORTH DAKOTA

Riverdale—North Dakota Nitrogen, Inc. (Affil. with Chem. & Ind. Corp. of Cincin-

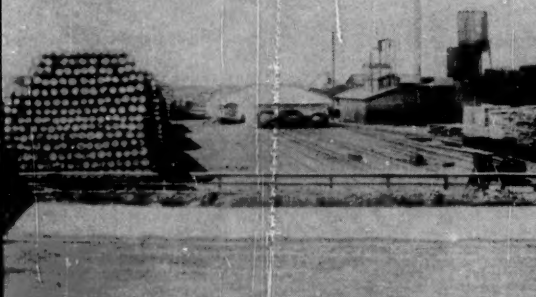
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Decay and Termite Proof

Docks for Ocean Vessels



American Creosote Works, Inc.

New Orleans, La.

Plants at Pensacola, Fla.; New Orleans, Wainfield, La.;
Louisville, Miss.; Jackson, Tenn.

NEW PLANTS

nati, Ohio), T. W. Kleppe, Off. (of Bismarck); agric. fertilizers. HO: Delaware Under constr. \$15,000.

OHIO

Archbold—L. A. Young Spring & Wire Co.; HO: Detroit, Mich. \$400,000.
Columbus Grove—Hill Packing Co., Chas. Rardin, Mech. Supt. Est. date of oper. Jan. 1959. (B)

OKLAHOMA

Ada—Ideal Cement Co., M. O. Matthews, Ex. V. P. In oper. \$20 million. Expansion.
Ardmore—Pioneer Packing Co.; meat packing. In oper.

Beaver County—The Texas Co.; gasoline processing. In oper. \$750,000.

Guymon—Adams Hardfacing. Plans announced for extensive expansion program.

Jay—Wingard Poultry Co., turkey processing. In oper.

McAlester—Gresham Products Co.

Perry—Charles Machine Works; light ditching machines, hydraulic scaffolds, oil derrick escape devices, back-hoes, water well pump equipment. Plans announced. 30,000 sq. ft. (B)

Ponca City—Conoco; packaging. \$750,000.

Ponca City—Continental Carbon Co. \$2 million expansion. Est. date of oper. Fall 1959.

Pryor—Gabel's Ranch House; packing plt. Plans announced. \$250,000.

Temple—Ideal Crane Co.

Tishomingo—FEPCO Corp.

Tonkawa—Kay Products Co. Delbert McComas, Partner, grain handling equipment and home swimming pools. In oper.

OREGON

Milwaukie—Hudson House, Inc., Kellogg Park Ind. Area; food packing & distributing—warehouse & office space. Under constr. \$2 million. 300,000 sq. ft.

Portland—Blitz-Weinhard Co., N. W. 12th Ave.; brewery. Plans announced. \$1.5 million.

Portland—Glenn's Mfg. Co., 2125 N. Blandon; lead sinkers. In oper.

Portland—Portland Commission of Public Docks, Terminal # 4; bulk cargo unloading dock. \$3.7 million.

Sweet Home—Santiam Lumber Co. (Sweet Home Div.), Walter Leisey, Gen. Mgr.; unsanded plywood sheeting. (B)

Toledo—Georgia Pacific Gang Mill, Milton Luton, Gen. Mgr. In oper. \$350,000. Expansion. (B)

PENNSYLVANIA

Altoona—Sylvania Electronic Tubes (Div. of Sylvania Elec. Products, Inc.), Wm. B. Bowes, Mgr.; receiving tubes. In oper. 190,000 sq. ft. (D)

Berwick—Fulton Mfg. Co.; lamps. HO: Hoboken, N. J. Plans announced. \$270,000. (C)

Bridgeville—Universal Cyclops Steel Corp. (with U. S. Navy), Wm. G. Stewart, Pres.; high temp. metals for use in jets, missiles & rockets. Under constr. \$4 million.

Conneautville—Milmac Co., Rte. 18 & B&E RR; toys HO: Chicago, Ill. Est. date of oper. May 1959. 40,000 sq. ft.

Coudersport—Pure Carbon Co., John J.

Shalfield, Pres.; indus. carbon. In oper. \$250,000. (C)

Dunmore—Brown Equipment Mfg. Co. (Subs of Associated Transport Co.); repair & maintenance of trucks and truck trailers. Offices: New York City, and Charlotte, N. C. Under constr. 650,000 sq. ft. (C)

Freeland—Excelsior Quick Frosted Metal Products, Inc.; frozen foods. HO: Long Island City, N. Y. Plans announced. \$450,000. (C)

Horsham Twp.—Avionics Corp. of America, W. R. Griffin, Pres.; fabrication of electro-mechanical equipment and cable and harness assemblies, electronic major and minor assemblies. In oper. (B)

Jeanette—(Unidentified firm); undergarments. Will locate. (C)

Johnstown—National-U. S. Radiator Corp., T. B. Focke, Pres., Research Park; engineering. In oper. \$1 million.

Manchester—Foam Products, Inc., D. J. O'Neill, Pres., S. Main St.; indus. & medical therapeutical products. Formerly located at 149 E. College Ave.

New Eagle Boro.—U. S. Steel Corp., R. C. Beerbower, Gen. Supt.; coal mine—8-story preparation plant and unloading dock with barge unloading facilities. Under constr.

Philipsburg—De Nol Binding Co., Norman Brown, Plt. Mgr.; binding of newspapers, books, state and federal documents. HO: Cleveland, Ohio. In oper.

Poplar Grove—Ware Laboratories. Willard M. Ware, Pres.; aluminum. In oper. (B)

Scottsdale-Mt. Pleasant—(Unidentified firm); paper products. Plans announced. \$335,000. (C)

Sunbury—Wilson Products, Inc.; bobby pins, clips, plastic hair curlers, artificial horsehair spring curlers. HO: New York City. Plans announced. \$300,000. (D)

Towamencin Twp.—Nice Ball Bearing Co., Theodore Stilker, V. P.; lab facilities—engineering research & development. In oper. (C)

Wilkes Barre—North American Cigarette Mfrs., Inc., 201 Carey Ave.; cigarettes. In oper. (D)

Wilkes Barre—Prestige Shoe Co., George Ave. & Washington St.; shoes. Moving from 421 N. Penna. Ave. Site selected. \$360,000. 50,000 sq. ft. (D). Expansion in city.

PUERTO RICO

Carolina—Miami Window Corp. of P. R.; alum. windows. Est. date of oper. March 1959. (B)

Humacao to Yabucoa—Braid Corp. of P. R.; elastic braid. Est. date of oper. Feb. 1959. (B)

Juncos—Bonita Uniforms, Inc.; nurses & maids uniforms. In oper. (C)

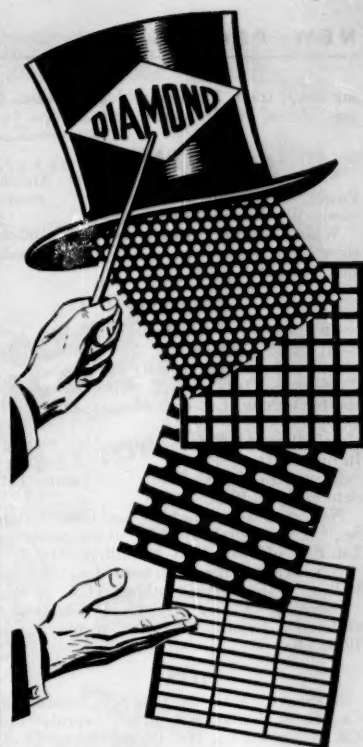
RHODE ISLAND

No plants reported.

SOUTH CAROLINA

Abbeville—The Shirtmaster Co., Inc., Jules Peters, V. P. & Treas.; shirts. Reorganization of company. In oper.

Columbia—Jeff Hunt Machinery Co., Jeff D. Hunt, Pres., Hwy. 21 (7 miles from Columbia); parts & service facilities, weld-



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NEW PLANTS

ing shop, track & roller rebldg. facilities & gen. offices. Plans announced.

SOUTH DAKOTA

Sioux Falls—Central Utilities Atomic Power, Associated; "Pathfinder" atomic power plt. Under constr.

Winner—Miller Bros., Hwy. 18; office, show room, parts room, service dept. & body shop. In oper.

TENNESSEE

Chattanooga—Professional Golf Co., Tremont St.; "First Flight" golf clubs. Plans announced. Expansion. (B)

Etowah—VIBO Corp.; men's & women's sports clothing. Est. date of oper. Feb. 1959. (C)

LaFollette—Supreme Plating Co.; plating. In oper. (B)

Memphis—United Paint Co.; paints. Est. date of oper. 1959.

Nashville—Gates Rubber Co., Chas. Gates, Sr., Off.; tires, tubes, other rubber products. Est. date of oper. 1963. \$9 million. (D)

Newbern—Miller Garment Co., Samuel Miller; western style clothing. (C)

Savannah—Clifton Mfg. Co., F. Silverman; children's dresses. Est. date of oper. Jan. 1959. (B)

TEXAS

Beaumont—E. I. du Pont de Nemours & Co., H. C. Bailey, Plt. Mgr.; caprolactam. Est. date of constr. Jan. 1959. \$Multi-million. (B)

Carrizo Springs—Texas Calgary Co., J. Clyde Hall, Supt.; cracking plt. HO: 320 Petroleum Bldg, Abilene, Tex. In oper.

Channelview—Texas Butawiene & Chem. Corp., K. D. Bowen, Gen. Mgr., Box 77; facilities for production of propylene concentrate. Est. date of oper. Jan. 1959. HO: 440 Bank of the South West Bldg, Houston, Tex.

Corpus Christi—Cantwell Co., E. R. Cantwell, Jr., 3523 Agnes; inner spring mattresses, box springs & orthopedic mattresses. Operations formerly at Colo. Springs, Colo. consolidated in C. C.

Corpus Christi—Pontiac Refining Corp., Edwin Singer, Pres., 3400 Lawrence Drive, Box 1581; redesign and modification of a crude unit and constr. of 5,000 bbl. Unifier. Under constr. \$1.5 million.

Dallas—Aeroquip Corp., Clyde Stratton, Plt. Mgr., 9105 Sovereign Rd., Brook Hollow Ind. Dist.; flexible hose assemblies, detachable fittings, couplings, clamps, straps, cargo tie-down equipment, & similar products. HO:

Jackson, Mich. 10,000 sq. ft. Relocation in city.

Dallas—Aero-Test Equipment Co., T. W. Howard, Jr., Pres., 1601 Dragon St.; aeronautical testing equipment. Relocation in city—moving from 2615 W. Mockingbird.

Dallas—Dallas Power & Light Co. (Affil. of Texas Utilities, Inc.), C. A. Tatum, Jr., Pres. \$27 million expansion program announced.

Dallas—Donovan Uniform Co., Inc., Jack Donovan, Pres., 1365 Crampton, Trinity Ind. Dist.; In oper. Relocation in city—moving from 721 Browder.

Dallas—DuBois Co., Inc. (Deepes Div.), S. Central Expressway; chemical cleaning compounds—sales office, plt. & labs. Est. date of comp. Spring 1959. Moving from 1640 S. Fitzhugh Ave.

Dallas—Fineline Co., Inc., Paul C. Porter, Pres., 1365 Crampton, West Trinity Ind. Dist.; mfrs. & distributors of passbooks, checkbook covers, specially designed loose-leaf covers. Relocation in city.

Dallas—Foremost Dairies, L. B. Hughes, V. P. & Gen. Mgr. of SW Div Brook Hollow Ind. Dist.; Under constr. 75,000 sq. ft.

Dallas—G. E. Miller & Co., Giles E. Miller, Pres., 2311 Cedar Springs; printing—general offices. In oper. Moving from Cotton Exchange Bldg.

Deer Park—Shell Chem. Corp., G. Purcell, Plt. Mgr., post office address—Box 2633, Houston, Tex.; phenol & acetone unit. Est. date of oper. 1959. HO: 50 W. 50th St., New York City.

El Paso—El Paso Natural Gas Products Co., J. T. McNut, Mgr. (Sou. Div.), Off Sands Hill Freeway; terminal & tank farm, steel whse. & office bldg. In oper. 53-acre site. (B)

UTAH

No plants reported.

VERMONT

Bellows Falls—H. Margolin & Co., Inc., Jacob Margolin, Pres.; ladies' pocketbooks. Est. date of oper. Spring 1959. (C)

Burlington—Edlund Co., Inc., W. W. Edlund, Pres.; can openers, egg beaters, etc. Est. date of oper. 1959. (B)

VIRGINIA

Bedford—Moore of Bedford, Inc., Sam Moore, Pres.; upholstered chairs. Est. date of oper. 1960. \$250,000. (C)

Cape Charles—Tidewater Construction Co. Concrete Plant; concrete prestressed. Site being acquired. \$8 million.

Richmond—B. T. Crump Co., R. H. C. Seaton, Pres.; hassocks, seat covers, seat cushions, porch accessories, marine cushions, life preservers, auto tops. Est. date of oper. June 1960. \$875,000.

Roanoke—Hake Mfg. Co., George Kissak, Pres., Hollins Rd.; plastics. Plans announced. (D)

Roanoke—Poly-Scientific Corp., Felix Kelly, Ast. to Pres.; electr-mechanical devices. Est. date of constr. 1959. (C)

Stuarts Draft—Elliott's Meat Products (Br. of Elliott's Dairy, Inc. of Charlottesville), W. R. Swift, Pres. (of 2473 Mt. Vernon St., Waynesboro, Va.), Rte. 340; sausage & sausage products; custom slaughtering. In oper. Moved from Charlottesville, Va.

WASHINGTON

Burbank—River Grain Terminals, Inc., Russell Woolcock, Pres.; grain storage. 70,000 sq. ft. bldg. \$258,000. Expansion. (B)

Hedges—Bunker Hill Co., John Bradley, Pres.; phosphate fertilizer. HO: San Francisco, Calif. Est. date to begin constr. Spring 1959. \$10 million.

Olympia—Capitol Plywood Plant (Simpson Logging Co.), Frank Abbott, Supt.; plywood. In oper.

Renton—Austin Co.; office & engineering bldg. 200,000 sq. ft.

Seattle—Graystone, Inc., 134 Nickerson St.; concrete blocks. In oper. \$300,000.

Seattle—Western Chemical Co.; office & warehouse. Plans announced. 36,000 sq. ft. (B)

Spokane—Inland Empire Dairy Assn. (DARIGOLD), Jos. M. Click, Mgr., Division & Francis Sts.; dairy plant. In oper. \$3 million.

Tacoma—Port of Tacoma, M. S. Erdahl, Secy; 2,500,000 bushel grain storage. Est. date of oper. early 1959. \$375,000.

Walla Walla—Stramit Corp., B. P. Haley, Pres.; mfg. bldg material from wheat straw. HO: Havre, Mont. Plans announced. (C)

WEST VIRGINIA

Baileysville—Douglas Pocahontas Coal Corp.; 8,000 acres of virgin Douglas seam coal—new op. to be opened. New preparation plt. has been completed.

Cairo—Ravens-Metal Products Co.; alum. fabrication. Plans announced.

Elkins—Metalab-Labcraft Corp.; lab equipment. \$250,000. Expansion.

Ranson—Westbury Fashions, Samuel E. Schwartzman; women's wear. HO: Hagerstown, Md. (C)

WISCONSIN

Appleton—Standard Mfg. Co., Victor P. Schmidt, Pres., 1100 N. Lawe St.; woodwork. Est. date of oper. Spring 1959. (B)

Milwaukee—Allen-Bradley Co., Harry L. Bradley, Chm.; elec. machinery. Est. date of oper. Dec. 1959. \$2.5 million.

Superior—Champion of Minnesota, Inc., P & R Dock; grain storage bldg. Under constr. \$288,000.

Two Rivers—Hamilton Mfg. Co., Edw. P. Hamilton, Pres.; household appliances. Under constr. \$250,000.

West Allis—Wisconsin Motor Corp., H. A. Todd, Pres.; air-cooled engines. \$300,000. Under constr.

WYOMING

No plants reported.

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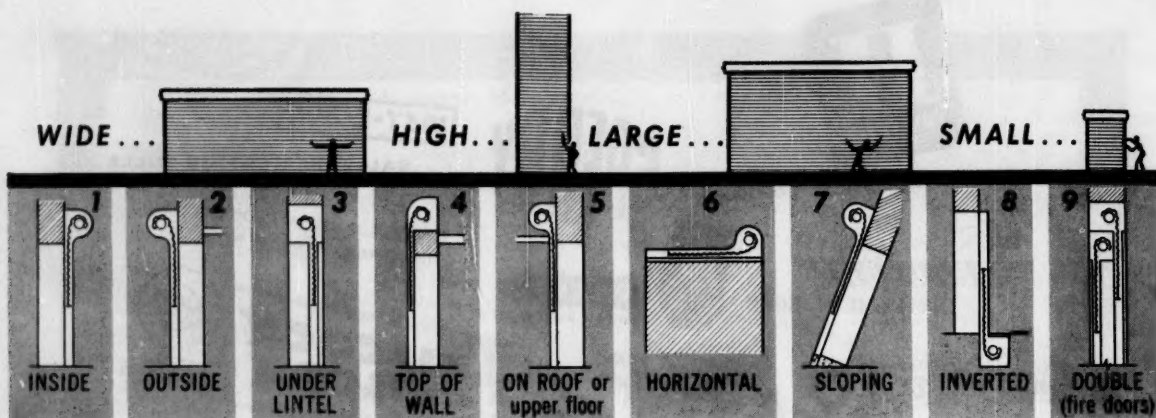
ST. PETERSBURG CHAMBER OF COMMERCE

Jack Bryan, Industrial Director

Dept. ID

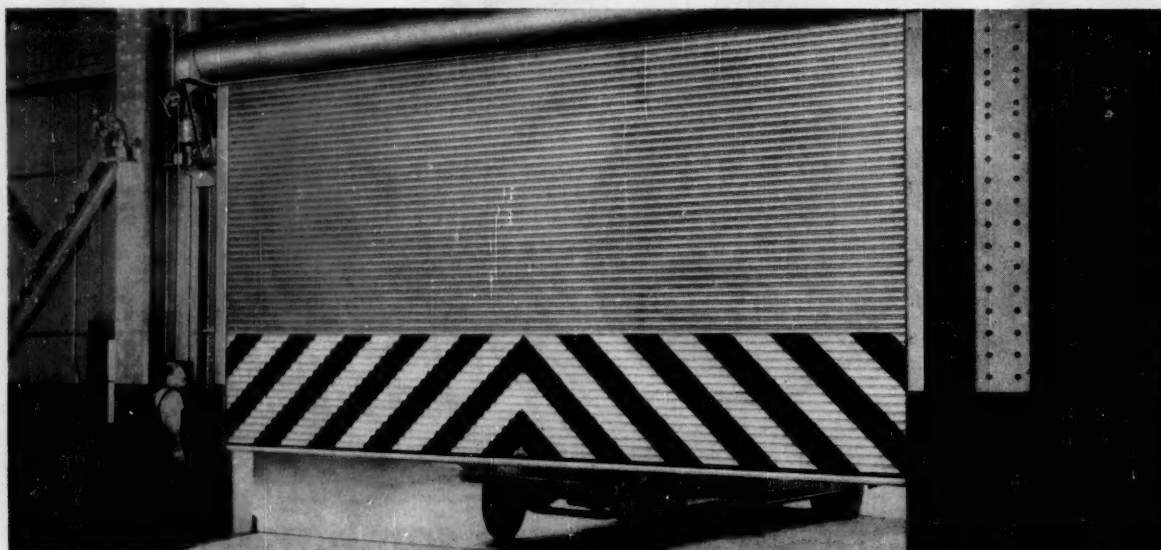
St. Petersburg, Florida





**Quick Guide to
Kinnear Door
Versatility**

Solve Every Door Need With **Kinnear** Steel Rolling Doors



Whether your door needs are standard or special, Kinnear Rolling Doors save time, cut costs and add protection more ways than any other type of closure.

You get these multiple advantages from the coiling action of Kinnear's interlocking steel-slat curtain (*originated by Kinnear*). These Kinnear advantages fit special needs *more different ways* than any other type of door. For example, sketches show:

1. Mounted on inside wall; coils above doorway.
2. On outside wall; leaves ceiling clear.
3. Hood under lintel or concealed in wall.
4. Hood above lintel or on top of wall.
5. Hood above roof or upper floor level.
6. Horizontal mounting (openings for observatory, ventilator or similar eqpt).
7. Sloping doorway (chutes, hoppers, etc).
8. Inverted mounting (coil below door sill).
9. Kinnear Steel Rolling Fire Doors on either side of wall — or a service door and a Kinnear Steel Rolling Grille (all-steel protection that doesn't block light, air or vision).

No matter how they're installed, Kinnear Rolling Doors open completely out of the

way . . . need no usable, floor, wall, or ceiling space for either storage or operation . . . give you extra all-metal protection against fire, theft, wind, weather, or vandalism. Built any size; motor or manual operation; for old or new construction. Extra-heavy galvanizing assures lasting resistance to corrosion, Kinnear's special Paint Bond brings quick, thorough coverage and lasting adhesion of any paint you may apply. *Write for full information on Kinnear Rolling Doors to fit your needs!*

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MANUFACTURERS RECORD

(IN REVIEW)



JANUARY 1885

(AS ABSTRACTED MORE THAN 70 YEARS LATER)

BALTIMORE, MD.

A FLORIDA WOMAN WHO RUNS A SAW MILL

It is not often that a woman undertakes to run a saw mill, but there is at least one in the country who has done it, and judging by the following letter in the Northwestern Lumberman, she is evidently well able to manage the business. She writes:

"Your letter of late date requesting me to give my experience as a lumber manufacturer is at hand. I will state at the start that I am not in the business through choice; but having loaned money to parties with which to purchase a saw mill, I was compelled by their failure to make even the first payment to take the machinery from them. I then put my son-in-law, Ernest Wever, in charge. I told him I knew nothing of sawmilling, but I knew that the sawdust was too fine and the scratches on the boards too close together. I left him to run the mill, but in a short time I found he could do no better than other men, and I took him out of there so quick it made his head swim. I moved the mill a distance of 20 miles, fording the Hillsborough River, and placed it near my home, at an actual expense of \$9; and in a few days I had everything in good order. I have my own teams and carts and take timber from my own lands.

SAW MILL AND SATAN

"Although accustomed to manage my own affairs, commencing by the time I was grown, I found difficulties enough in making lumber, and I have often said that a saw mill and Satan belong to the same family, and some people say that since I became the owner of one they are sure of it. But while they talk I am at work. This is the trouble with half the country saw mills: There is too much talking and not enough work. Why, Mr. Editor, the most of men talk over a log long enough to saw it into inch boards. Then when they get started they discover that the fireman has not steam enough; then they must all sit down and talk again. By the time steam is up and one or two boards sawed, a belt must be repaired, which might just as well have been attended to before working hours in the morning or at noon. Then one man sews the belt while all engage in talk again. When the belt is ready, the sawyer gets it into his mind that the machinery needs oiling; then he hunts up the oil can, for he never has a place for anything, and goes around squirting oil into every hole but the right one, while the other hands go on with the talking. The next day they are out of logs, and the mill hands do nothing except allow "their time to go on." The day following some of the men are reported sick, and more time is lost. At the end of the month there is little lumber and no money, and they all wonder why sawmilling does not pay.

"I knew well enough that machinery is made to run, and when running it should be at work, and all I had to do was to keep the saw cutting for ten hours a day and six days in the week. In order to do this the mill must be kept in good order, not by repairing broken parts, but by keeping it from getting broken.

And I soon saw that the parts of machinery out of sight were neglected the most. I would suppose any man would know that it is the inside of things that needs attention—the inside of the boiler, the inside of the cylinder, the inside of the pump or inspirator is of far more importance than the outside. Nothing makes me more angry than to see a man rubbing up the outside of his boiler when I know the mud is six inches deep inside, baking, burning and blistering the iron; yet I have seen but few mills except my own. But I saw how that was managed before I took possession of it, and I am told that others are managed no better.

Many a man in the saw mill business would do well if he could get skilled labor, but this state is cursed with a tribe of saw mill tramps who claim to know everything and when tried can do nothing. They are always on foot and out of money; yet if we are to believe them they have been superintendents of the largest mills in America. Every one of them has been Governor Drew's principal sawyer for at least ten years, receiving not less than \$6 a day. They all know more of machinery than the men who make it, and are ready, not to commence sawing, but to commence cutting, changing, splicing, and rebuilding, with a promise that if I will give them \$3.50 a day and board they will double the capacity of my mill and be ready for work in about three weeks. I have never been deceived by one of them, but they leave their mark wherever employed. One half of them ought to be hung and the other half sent to the penitentiary. One came to me a few days ago who was an exception, for, notwithstanding he was 'the best sawyer in Florida,' he was willing to work for \$10 a month and board, or \$12 if he boarded 'hissself'—hungry looking wretch! I wouldn't have boarded him even a day for \$2, had I knew he couldn't board himself at any such price. Said I, 'do you see that road out there?' He very meekly said he did. 'Then,' said I, 'you get out there, and when you get to it you will take either end you like; the one that will put you out of my sight the quickest will suit me the best.' He went. If he had not, I would have put the

dogs on him in three minutes.

I employed none but the best hands—not paying too much or too little, for one fault is as bad as the other.

I can't say just what my lumber costs me, but I know that when sold I have taken in more money than I have paid out. I am 53 years old, or about that, was born in Florida, and was raised at a time when bookkeeping was not thought of. I now have my second husband, and I am the mother of nine children, seven of whom are now living. Several of the elder are doing business for themselves, yet they always come to 'mother' for advice, and when they don't take it they wish they had. I have always managed my own business and I expect to while I live. I awake in the morning and plan the day's work while the men are asleep, and at the breakfast table I give every one his orders, including my husband, who never objects to my doing the thinking for the family.

YOU CAN'T DO IT

My first advice to men who contemplate going into the saw mill business—don't do it, for not one in twenty of you has the ability to succeed. If, however, you are determined to try it, be careful that you get the best machinery, strong and heavy enough to stand the bad treatment of awkward hands. Buy the most durable belts, no matter what they cost, for half the failures in our backwoods mills are caused by constant breaking of belts. And when a complete outfit is secured, locate where you can get timber and sell lumber. Keep your machines in good order, taking special care of all parts out of sight. Pay your hands in cash, and not in promises, for they work for the money and not for any love they have for you or your business. When you can't pay, shut down, stack your lumber, and discharge all hands. Your mill will neither eat, drink, nor wear anything while standing still. But when you do run, work everything to its full capacity.

Harriet Smith
Tuckertown, Florida
November 17, 1884

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PITTSBURGH PLATE GLASS FINDS NORTH CAROLINA

ENTHUSIASM-99%*



A new industry is a community event in North Carolina where modern farming is releasing people fast for new jobs. Here Governor Luther Hodges "breaks ground" in last year's cotton field for a new fiber glass plant near Shelby.

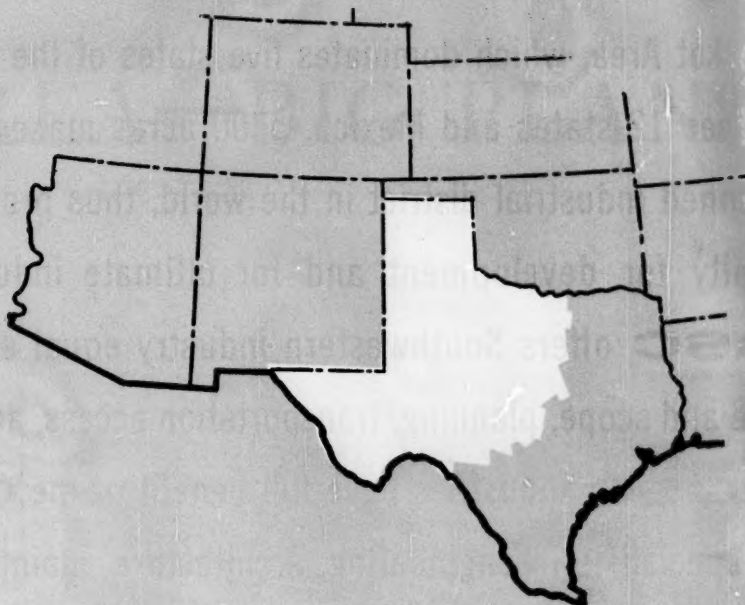
Giving reasons why Pittsburgh Plate Glass selected North Carolina for its new plant, General Manager R. A. McLaughlin of the Fiber Glass Division added "tremendous enthusiasm" to "proximity to market, excellent supply of qualified workers, and cooperation of state and local governments."

These reasons, plus whole-hearted welcome from neighborly North Carolinians, cause expanding industry to locate more and more plants in the South's pace-setting industrial state. Executives are invited to contact in confidence William P. Saunders, Director, Dept. Conservation and Development, Raleigh, North Carolina, for latest information.

NORTH CAROLINA

*99% of votes cast in the Cleveland County bond election were for the extension of necessary facilities to the PPG site.

Looking for a site which straddles Eastern and Western markets, a dispersal area offering near-maximum protection against enemy attack, a source of vast supplies of oil and gas, or a fast-growing regional market? If so, you'll find



*industrial opportunity in the
center of the great southwest*

west **TEXAS**

AN AREA SURVEY by **Industrial Development**
and manufacturers record

THE NATIONAL GUIDE TO INDUSTRIAL PLANNING AND
EXPANSION

GREAT SOUTHWEST CORPORATION'S series of planned industrial communities provide the one best location for industry in the Southwest. **GSC** is at the heart of the great Dallas/Fort Worth Metropolitan Market Area, which dominates five states of the Southwest and directly serves 12 states and Mexico. 5300 acres makes **GSC** the largest planned industrial district in the world, thus providing a unique opportunity for development and for ultimate industrial efficiency. Only **GSC** offers Southwestern industry equal advantages of location, size and scope, planning, transportation access, and on-the-site facilities. All **GSC** industries have full benefit of the **GSC** planning staff — specialists in engineering, architecture, maintenance, traffic-control, warehousing, land-planning and every field of industrial development. **GSC** master system of streets and trafficways guarantees proper traffic flow within the Development and gives immediate access to the excellent highway, railway, and air transportation serving this location. Landscaped recreational areas and community facilities are **GSC** benefits for the individual worker, creating a healthy climate for industry. At the very center of the greatest inland concentration of population in the United States, **GSC** offers industry the obvious site in which to grow and prosper in the Southwest. Locate for profit — with **GSC** at Dallas/Fort Worth, Texas.

Information on the Great Southwest Industrial District is available from
Great Southwest Corporation, P. O. Box 8105, Dallas 5, Texas, LAkeside 6-5251, or your Broker.

BIG AREA—BIG PLANS

THERE are probably more tall tales told about Texas than any other area on the face of the earth. And, as any Texan worth his boots will assure you, there's bound to be a modicum of truth in even the tallest of these tales.

He will tell you, too, with equal assurance, that Texas with its great variety of climate, topography and resources offers just about everything that makes for a good place in which to live, work and play. In that, a close look at the huge state will show, there is considerably more than a modicum of truth.

Let's take a look, for example, at the area known as West Texas. This is defined as a section of the state which includes 132 of its 254 counties and covers 58.3 per cent of the total land area of Texas. The current population of West Texas totals an estimated 3,438,064. In addition to the numerous large and medium-sized cities in the region a significant portion of this population lives in smaller towns and rural areas.

Some idea of the size of the area may be seen in the fact that, north and south, 550 miles stretch out from the top of the Panhandle to Kerrville, and east and west there are 590 miles between Fort Worth and El Paso. Elevation in the area ranges from 500 to 8,700 feet.

For most visitors from the East, the inspection of West Texas begins at Fort Worth. If you land at Amon Carter Field, you see one of the nation's finest airline terminals. If you land at Meacham Field, you see a busy executive

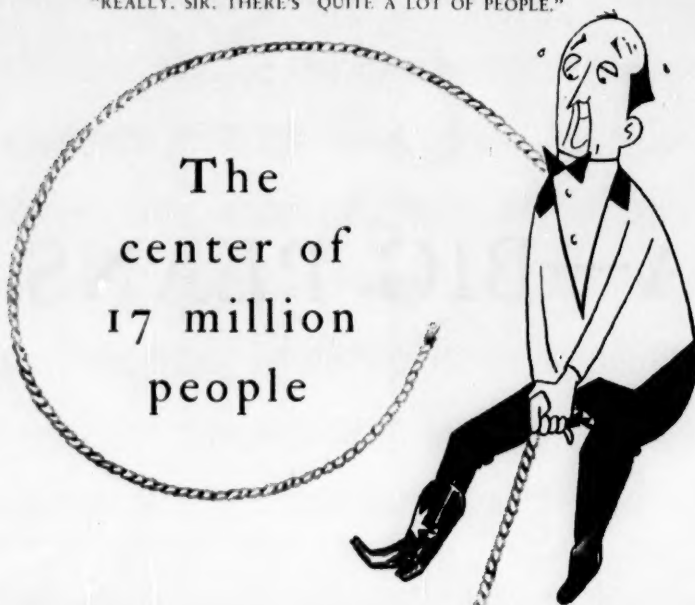


This view of the Flintkote Company plant at Sweetwater, Texas, gives an interesting panorama of the countryside typical to that area.



The plant of Bell Helicopter Corporation at Fort Worth takes advantage of wide open spaces for its extensive facilities.

"REALLY, SIR, THERE'S QUITE A LOT OF PEOPLE."



LASSED FOR EXPANDING INDUSTRY

PEOPLE make markets... and here in this Southwestern region, are 17 million customers.

To the market created by these millions, add such factors as climate for year-'round operations... contented employees with comfortable living conditions... spacious room for expansion... and you see why hundreds of modern industries are

thriving in this healthful business atmosphere.

West Texas Utilities Company offers a confidential information service about this area. We will prepare market research studies, site analysis facts, regional data, and other requested material — all tailored to your individual requirements.



Write today for human and physical resources data.
Public Service Department,
West Texas Utilities Co.,
Abilene, Texas

Serving Electric Energy
from the Red River to the Rio Grande

West Texas Utilities
Company

WEST TEXAS

terminal where dozens of corporation and private aircraft are based.

In either case, your final approach brings you down over the fast-expanding suburbs of the largest city in West Texas and the fourth largest in the state. You see evidence of the more than 500,000 people who populate the metropolitan area.

Something else you note is a complex of lakes around the city which promise adequate water for your industrial use. On the ground, you find the hospitality of Fort Worth to be just as big as its reputation. You learn quickly that industry is welcome here.

Booming Fort Worth, has an impressive list of industrial plants which make a tremendous variety of products. To name just a few, there are producers of industrial and aircraft patterns, oil field equipment, automobile air conditioners, truck and trailer bodies, structural steel fabrications, garments, foods, chemicals, plastics, furniture, and a host of others.

Concerning the city, the Fort Worth Chamber of Commerce observes that. "Unlike some cities, Fort Worth does not claim to be all things to all people, but it has much to offer any firm interested in serving the Southwest. It is different and has an economic and cultural personality all its own.

"In planning your expansion into the Southwest, Fort Worth is worth serious examination."

It was a hot afternoon when your editor filed a flight plan with Fort Worth's Meacham Field and took off for a look at industrial development elsewhere in West Texas. For one who likes to look at changing terrain and large-scale developments, it proves to be a particularly interesting survey.

Clearing Meacham, we set a course along airways Green 5 and Victor 16 for Abilene, checking off Weatherford, Mineral Wells, and Breckenridge along the way. It required only a few minutes to find the wide open spaces for which this section is noted.

Perhaps the most distinct impression made by West Texas is *bigness*. This is a big land, with big signs of progress, and big plans for the future.

Flying low enough to spot the cattle clustering around waterholes below, we criss-crossed the area from Fort Worth to El Paso and from the Panhandle to the Rio Grande. Every night was spent at a new motel where the kids could splash in the pool.

WEST TEXAS



In the foreground is General Tire & Rubber's synthetic rubber plant at Odessa, and the Odessa Butadiene Company plant is at the back of the picture.

This is an area that makes its imprint on the visitor—there are plenty of surprises. In fact, if you have preconceived ideas about West Texas, you'd better wipe the slate clean before you come.

For example Mineral Wells, located in Palo Pinto County west of Fort Worth, is a smaller community with a population estimated at 12,336. No cowtown, the city has a number of diversified industries which employ a total of approximately 900 persons.

Among the larger companies there are Texas Vittrified Pipe Company and Southwestern Plastic Pipe Company, currently employing a total of about 244 persons.

Other things produced in the city range from vinyl plastisols and aircraft radio equipment to industrial filters and nylon hose.

Called the "key city of West Texas," Abilene is the distributing center of a rich oil, manufacturing and livestock raising region. Income from the agriculture and livestock industry has always been fundamental in Abilene's economy, but oil and manufacturing have been continuously growing in importance.

Since its founding in 1881, Abilene has had superior transportation facilities, and through the years this has improved to the point where today the city is a focal point for excellent rail, highway and air transportation. For this reason Abilene has also become an important wholesale center, and more and more companies are

establishing branch offices and warehouses in the city.

The availability of water also has played a vital role in Abilene's growth. The city has three lakes with an aggregate capacity of 91,600 feet of water to meet residential, commercial and industrial needs.

Abilene also is a leading educational center, and it serves as the medical and dental center for West Texas.

Outstanding in the industrial growth future of the city is Abilene Plaza, an industrial development district comprising 800 completely planned acres. It has all utilities and excellent rail and highway transportation facilities.

At Abilene, for example, there are manufacturers making everything from mattresses and box springs to aircraft precision parts and soap.

Winging North, you encounter some of the scenic contrasts that are a part of West Texas. Lubbock turns out to be a sparkling city of much new construction set in an agriculture area.

Heading for the Panhandle, you take a look at a typical small city in West Texas, Childress. Key city in a section known as the Red River Greenbelt, Childress has a population of a little over 7,000.

Important facilities located in Childress include the diesel repair shops of the Fort Worth & Denver Railroad, and district headquarters for the Texas Highway Department, Lone Star Gas Company and West Texas Utilities. The city has never experienced a water shortage, as its water comes from 13

CHILDRESS, TEXAS



SOUTHEASTERN GATEWAY TO THE TEXAS PANHANDLE

- Abundant, proven deposits of gypsum awaiting development.
- Never a water shortage—15,000,000 gallons daily surplus now under development.
- 2,500 acre Childress Municipal Airport industrial tract — paved streets, all utilities, double track siding, low taxes.
- Will build to suit tenant for lease-purchase or long term lease.

For information write:

CHILDRESS BOARD OF CITY DEVELOPMENT

P. O. Box 28
Childress, Texas

DENVER CITY, TEXAS

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COUNTY ROADS	1.35	
CITY	1.20	75%
SCHOOL	1.60	15%

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OIL—GAS—POWER—WATER

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YOAKUM COUNTY STATE BANK
DENVER CITY, TEXAS

Take a look at
TODAY'S West Texas

○ MAJOR CITIES
○ TOWNS SERVED

An abundance of dependable low-cost electric power for continued industrial development is provided by the strong power system of Texas Electric Service Company. The Company continues to plan and build ahead to keep pace with the progress of the area served.

GENERAL OFFICE: FORT WORTH, TEXAS

producing wells and two lakes totaling 18,000 acre feet.

For industry, Childress has available 2,500 acres of land adjacent to the airport. The industrial tract is served by all utilities, has paved streets and a double track rail siding.

Flying to Amarillo, you discover a Texas "grand canyon" which looks like a wonderful spot for a camping weekend. And then you break out into a sweeping plain where the grain elevators are visible for miles and the glint of industrial structures is seen on the horizon.

This is the Panhandle, including 26 counties. Famed in legends of the West, this section today is earning new fame in industrial development.

The largest city in the Texas Panhandle, Amarillo covers an area of 29 square miles and is at an altitude 3,676 feet above sea level. The population currently totals an estimated 145,000, and it is expected that this will have grown to more than 160,000 by 1961.

The retail trade of Amarillo comprises 50 counties which have a total effective buying income of \$1,022,394,000. Retail sales in the trade area exceed \$738,715,000 annually.

Sixty per cent of the world's helium is found in the Amarillo area, and the area also has 10,852 producing oil wells and 4,550 producing gas wells.

Of particular interest is the fact that the municipally-owned water system has ground water resources considered sufficient to meet the needs

of a city twice the size of Amarillo for the next 50 to 75 years.

Fine transportation facilities serve Amarillo, including extensive rail and truck transportation which give overnight service to points within 500 miles. The city actually is the geographical center of a five-state wholesale area.

A few minutes from Amarillo you find Pampa, Borger, and Dumas, with their chemical process industries. Pumping stations serve as milestones.

At Dalhart, to the Northwest, you

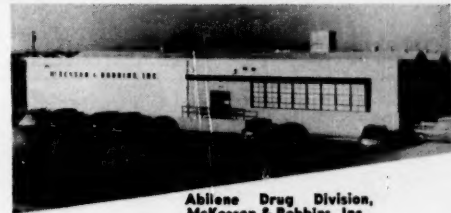
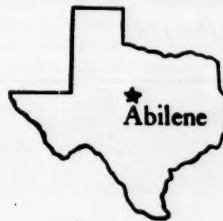
find what is probably the only wild animal show in the world based in an airplane hangar in daily use. There, while your plane is fueled, you can look at some of West Texas's attractions for the hunter—cougars, wild fowl, and rattlers.

Flying South again, you scan miles of rich agricultural land Southwest of Amarillo, spot-checking another community—Denver City. If you're looking for a dispersal site, here's one in the wide open spaces, only 19 miles from the New Mexico border.

... more
success* stories
from ...



Abilene Assembly Plant,
U. S. Time Corp.



Abilene Drug Division,
McKesson & Robbins, Inc.

... industrial and
distribution center
of Central
and West Texas

TIMEX and McKESSON & ROBBINS
... leaders in their fields chose
ABILENE.

The United States Time Corporation opened their Abilene assembly plant in 1949 with 75 employees. By 1954, employment rose to 450 ... and to 654 in 1957.

With 1,047 now employed, the Abilene plants' 1958 production of more than 2 million of the famous TIMEX watches will help maintain the Company's position as the nation's largest manufacturers of watches.

McKesson & Robbins, Inc., manufacturers and distributors of pharmaceuticals and drug supplies, serve their Central West Texas market from Abilene.

The Abilene Drug Division, established in 1952, serves forty-seven counties in Central and West Texas ... an area larger than many eastern states.

In the distribution area served by Abilene, the 1958 wholesale volume will be more than \$90 million.

*Proof of the "healthy
climate" industry enjoys
in Abilene, Texas



This huge bank and office building will be built by the El Paso National Bank as part of a building project involving the development by the bank of an entire block of downtown property. The program ultimately will cost between \$6 and \$10 million.

For information, based upon recent FANTUS Area Survey,
write or call **DIRECTOR OF INDUSTRIAL DEVELOPMENT**
ABILENE CHAMBER OF COMMERCE

Box 2281, Abilene, Texas
Phone OR 4-7241

SOON... IN EL PASO --

"one of the most dynamic areas in the Southwest"!

Construction of El Paso National Bank's new bank and office building, in the heart of downtown, is scheduled to start early in 1959.

For information concerning space in this preferred office location and top retail shopping area, write or phone:

HARLAN H. HUGG, Suite 602
El Paso National Bank Building
El Paso, Texas—Phone: KEystone 2-4481

For information about El Paso industrial sites and retail trade opportunities, phone or write:

Wm. M. Updike, Asst. Vice President
El Paso National Bank, P.O. Box 140
Phone: KEystone 2-4481 Ext. 211

EL PASO NATIONAL BANK

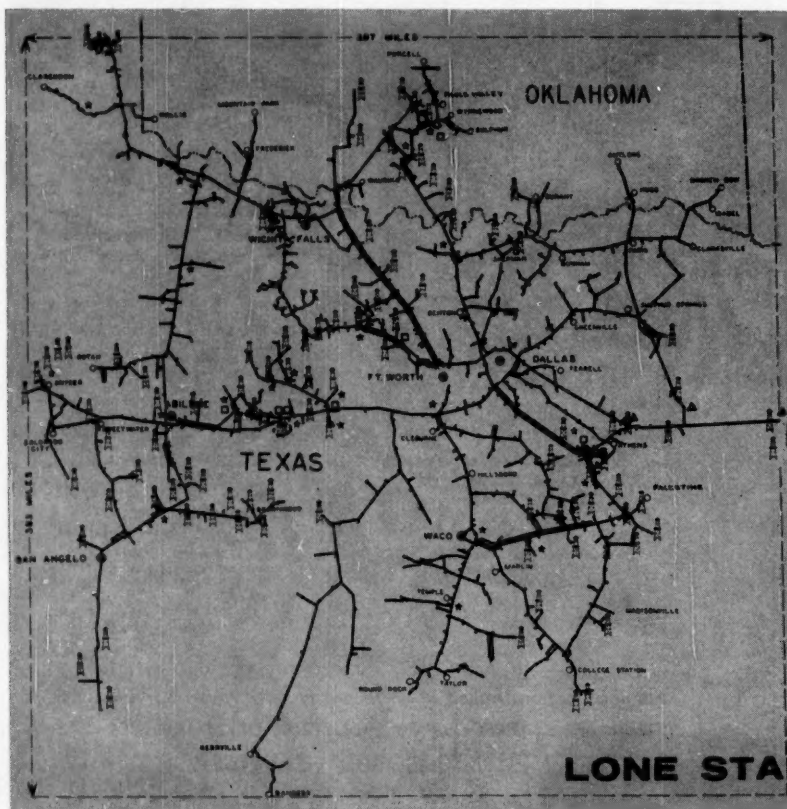


Capital Funds more than \$10,000,000



New building, to be located across from the Plaza, on Mesa, Main, Stanton and Franklin in the center of town

400 CAR PARKING
GARAGE ADJOINS



spurs to growth!

GREATEST SPACE

West Texas offers wide-open spaces suitable for the expansion of almost every type of industry. There's room for now and tomorrow as you naturally grow with this booming market.

GREATEST PEOPLE

West Texans still have the pioneer spirit. The THREE MILLION in the area served by Lone Star do everything BIG...from building commerce and industry to accepting new products.

GREATEST GAS SERVICE

Only versatile natural GAS spurs so many industries' growth. Gas is abundant, dependable, low-cost...and available at all times.

WEST TEXAS IS THE GREATEST!

The points of the Lone Star Gas service "spurs" spread over almost 19,000 miles of pipeline. This vast gathering and distribution network serves 800,000 customers in 456 cities. Gas is a vital, basic ingredient for industrial growth.



LONE STAR GAS COMPANY

WEST TEXAS

The general economy of the area includes farming, oil and gas production, chemical manufacturing, electric power and propane and butane gas.

Denver City has a population of 5,025, and some industrial workers available in the city. Within 20 miles is a population of 12,000 from which additional labor can be drawn.

The community also has a good water source from 12 wells which have a four-million gallon capacity. Average daily consumption is now only about 700,000 gallons.

Farther South, you find one of the hottest spots for industrial development in the country—the Permian basin. A line of thunderheads building up over the Odessa-Midland air terminal adds a figurative reminder that this area is a spot for explosive growth.

Major oil discoveries have, of course, been the prime motivation for rapid development. But today local developers are putting the emphasis on integration and diversification, with the result that these cities are attaining an impressive balance. You'll find the signs of prosperity all over—new office buildings, new government buildings, and slick new motels.

A similar atmosphere is found a few miles to the East at Big Spring, in Howard County. Like other fast-growing West Texas communities, Big Spring is looking toward the future with unbounded optimism.

On the recommendation of the Chamber of Commerce directors, the city has appointed a citizens committee which has been given the responsibility for working out details of a master plan to be used in providing for the future growth of Big Spring and Howard County. Officials feel that planning for better public service at a minimum cost will help attract more industry and will more adequately serve the industries already located there.

One of the big plants in Big Spring is that of Cosden Petroleum Corporation. Dan M. Krausse, senior vice president of Cosden, is a director of the chamber and chairman of its industrial committee. He comments:

"Aside from the advantage of its geographic location at the Crossroads of West Texas, Big Spring has considerable to offer for industrial development. Abundant water, low-cost electric power, natural gas from nearby fields, and a good supply of highly creative and productive man-

power are available. Through Cosden's refining and petrochemical operations, many basic raw materials are available, including plastics. Community leadership is responsive to the needs of small industry. Environment is good to foster the growth and development of companies and employees alike."

Taking a swing Westward, you find yourself once more on airway green five, taking the transcontinental route to El Paso. Now you are really convinced that there's still a lot of the USA still to be developed.

You fly for scores of miles seeing only a windmill or a pumping station. There are arid stretches where water is the problem. In fact, you have your navigation set tuned to the CAA radio at a place aptly called Salt Flat.

You find, too, that Texas has some impressive mountains. There is Guadalupe Peak, towering 8,751 feet. And then there is real desert. You skim across the cactus and sage for a landing at El Paso International.

Here you find one of the country's more interesting cities. Mexico is so close you can see the houses on the hills across the river. This is one of the major crossroads of the nation's East-West communications systems. Tourist facilities are exceptional.

El Paso has a trading area of 28 countries with a population of 640,000. An additional market of 170,000 is found in nearby Mexico.

The proof of the pudding is a population increase from 194,968 in 1950 to 296,000 in 1958. Industrial growth is evidenced by huge smelters as well as small apparel plants. Migratory Mexican labor gives El Paso an unusual plus factor in attracting labor-oriented firms.

Beautiful Lakes

Now you fly East again. A course of 102 degrees from Midland carries you to San Angelo, a bright city on the edge of a beautiful lake. You check off another Air Force Base, making a mental note that there must be a good reason so many air force bases are located in West Texas—good flying weather the year 'round.

To round out your impressions you stop at the Dude ranch section south of San Angelo. You find the Flying L ranch at Bandera just the thing for the kids. While getting gas at Kerrville, you watch final assembly of Mooney aircraft in the plant just off the runway.



West Texans are church-goers, and this Trinity Methodist Church at Amarillo is an example of the modern houses of worship in the area.



Community pride is evident in the attractive new Abilene Chamber of Commerce office building. In downtown Abilene, the facility is the center of community activity.



Midland's public safety building, built at a cost of more than \$600,000, is considered a model by police and fire officials throughout the nation.

Back in Fort Worth, you add it up. You decide the worst hazard in scanning West Texas is the tendency to underestimate the area unless you've seen it.



Eyeing a new plant site?

The Texas Power & Light Company invites expanding industry, large or small, to make use of the services of its staff of specialists—skilled and experienced in serving officers and executives of industrial corporations. Without obligation, your particular location problems will be carefully and thoroughly analyzed by those having broad knowledge of industry and facts pertaining to manpower, materials, resources, finance and other important factors in Texas.

Write, wire or call J. D. Eppright, Director, Industrial Development Division, Texas Power & Light Company, Dallas, Texas. Inquiries held in strict confidence.

Booklet detailing plant location services
sent on request.



**TEXAS
POWER
& LIGHT
COMPANY**

WEST TEXAS



The sprawling assembly building of Convair's Fort Worth Division is 4,000 feet long. Plant and ground cover more than 600 acres. Convair is a division of General Dynamics Corporation.

You've spent a week looking at a part of one state, and all you've done is wet your appetite. You suddenly realize that you're looking at an area as big as New England.

But, more important, you've discovered sources of information and you've met people who help you plan your expansion in this big area. You've assembled some useful background data on which you can build. Let's take a look at some of the basic factors:

Resources and Materials

The greatest resource in West Texas continues to be oil and gas which not only supply an important source of industrial power but also are the basis for a host of petrochemical products. And, despite the tremendous development of past years of the petroleum industry in this area, a virtually unlimited potential still exists.

The Permian Basin area of West Texas, of which the City of Midland is the center, has the largest and most active oil reserves in North America. For example, in this area there were 433 drilling rigs active as of January 1, 1958. These comprise 43 per cent of the total active rigs in all of Texas and New Mexico.

During 1957 there were 7,240 wells completed in the Basin, as compared with 6,747 in 1956 and 5,984 in 1955.

Total Permian Basin production in 1957 was approximately 549 million barrels, an increase of almost 12 million barrels over the 1956 production of 537,122,566 barrels.

Another important resource in West Texas is agriculture, particularly cattle which provides the basis for an ever-growing meat processing industry.

U.S. Department of Agriculture figures show that in 1958 Texas had 7,736,000 cattle and calves on its ranges, with a total value of \$812,280,000. It is noteworthy that nearly 85

per cent of the cattle in the state are beef cattle.

Conservative estimates are that the annual Texas beef calf crop is in excess of three million head.

Even with the continued growth of livestock, however, cotton continues to be the crop which every year returns the state's farmers more cash income per acre than from other land uses.

Estimates are that the value of the West Texas cotton crop, after it has moved through the channels of trade and processing, amounts to well over \$3 billion.

The Market

In addition to being strategically located in relation to the entire Southwestern market area, West Texas comprises an important market area of its own.

A spot check of income and expenditures in sample West Texas cities, as reported in the Blue Book of Southern Progress, will serve to illustrate this point.

Fort Worth was reported as having a total consumer income of \$1,160,000,000, per capita income of \$2,050, and total consumer purchases of \$1,070,000,000.

At El Paso, total consumer income was listed at \$418,000,000, while per capita income was \$1,456 and consumer purchases came to \$403,000,000 annually.

At Lubbock the figures were \$254,000,000, \$1,477 and \$284,000,000, respectively, while those for Amarillo were \$236,000,000, \$1,686, and \$238,000,000.

Odessa's total consumer income figure was \$127,000,000, per capita income was \$1,549, and total consumer purchases came to \$127,000,000. For Midland the figures were \$94,000,000, \$1,774, and \$102,000,000, respectively.

WEST TEXAS

Latest available estimates on employment in West Texas, made by the Texas Employment Commission, showed a total of 1,030,950 workers on the job.

Of that figure, 144,055 were on farms, and 888,605 were in nonfarm pursuits. The total in manufacturing jobs was 132,934.

Listed as unemployed in the labor force were 61,375. This gives a substantial backlog of available workers for any incoming industry.

As the result of established industry in West Texas, a great variety of workers trained in everything from office procedures to mechanical skills are in the labor force.

Examples of how typical wage rates run may be gleaned from a survey conducted in the Fort Worth area.

Junior accounting clerks, for instance, were receiving from \$1.10 to \$1.90 an hour, while pay for accounting clerks ranged from \$1.35 to \$2.92. Wages for bookkeeping machine operators ranged from \$1.25 to \$2.75, and for calculator operators, from \$1.35 to \$2.50.

Maintenance carpenters earned from \$1.56 to \$2.40. Maintenance electricians were getting from \$1.63 to \$2.60, while the pay for fork lift truck operators ranged from \$1.35 to \$2.10 an hour. Freight handlers received from \$1.17 to \$1.95, and general maintenance men were getting from \$1.52 to as high as \$3.42.

Seven Power Companies

Seven power companies operate in West Texas, and they have generating capacity either operating or planned to meet all demands from existing

industry and from the new plants which will come in during the future.

The seven are West Texas Utilities Company, Texas Power & Light Company, El Paso Electric Company, Southwestern Public Service Company, Community Public Service, Central Power & Light Company, and Texas Electric Service Company. All these firms have industrial development departments with experts who stand ready to lend assistance to any industrialist considering West Texas as the location for a new plant.

Looking to the future, these seven companies and four other companies in Texas are jointly sponsoring a four-year, \$10 million research program in the field of controlled thermonuclear reactions. The program is being carried out in cooperation with the General Atomic Division of General Dynamics Corporation.

Of the companies operating in the area, West Texas utilities serves a large portion of the area, comprising 49 counties and an area of 52,000 square miles extending from the Red River across Central Texas to the Mexican border. As of November 1, 1958, the company had 108,210 customers in 167 towns and communities.

The current system generating capacity is 225,500 kilowatts, with an additional 90,000 kilowatts of capacity now under construction. Upon completion of construction now in progress, early in 1959 the system generating capacity will be 345,000 kilowatts.

Another company serving a large part of West Texas is Southwestern Public Service Company, with headquarters in Amarillo.



This is Buffalo Lake, southwest of Amarillo. Lakes created by dams have helped reduce the water problem in many parts of West Texas. Also, in the long-range picture is the prospect of using atom-energy processed sea water for irrigation.

BIG SPRING



....a key location for industry in West Texas.

- On the Texas & Pacific Main Line. Crossroads—U. S. Highways 80 and 87
- Million dollar airport under construction.
- Efficient, cooperative labor.
- Excellent business climate.

A factual analysis of Big Spring's economic and social factors of interest to industry is available.

please write:

Big Spring Chamber of Commerce
Box 1391
Big Spring, Texas

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— because we've got an Industrial Development team

In FORT WORTH

that believes in presenting plain facts to companies considering establishing plants, warehouses, sales offices, etc. in the important, rapidly expanding Southwest market.

Naturally, we hope you'll locate

In FORT WORTH

— but—if your company prefers locating in a small city, we gladly work with you in finding a suitable building or site

Near FORT WORTH

Of course we've got water, transportation, a favorable labor market, office space, warehouses, industrial building sites, and wonderful climate

In FORT WORTH

— but probably our most inviting asset is a genuine, down-to-earth desire to help locate industrial facilities which will be mutually profitable for you and our friendly people

In FORT WORTH

Last year 68 firms established new manufacturing plants or warehouses, or completed major expansion projects

In FORT WORTH

Get the facts about the FORT WORTH, TEXAS area. For personalized confidential SERVICE, contact Industrial Development Department, Fort Worth Chamber of Commerce (Telephone ED 6-2491—114 East 8th Street).

WEST TEXAS

This firm's total service area boundaries start at the southwest tip of Kansas, include the Texas and Oklahoma panhandles, the South plains of Texas and the eastern and Pecos Valley parts of New Mexico.

Although the service area of Texas Power & Light is in the eastern part of the state, it does reach into a part of the Southwest area. TP&L is particularly active in giving plant location assistance and has issued a booklet covering its plant location service. Headquarters are in Dallas.

The Texas Electric Service Company, with headquarters in Fort Worth, serves 44 counties in west and northwest Texas.

One of the more plentiful commodities in West Texas is, of course, natural gas which is available at low cost for residential, commercial and industrial use.

One of the major distributors of natural gas is Lone Star Gas Company. With headquarters in Dallas, the company has a network of transmission lines reaching a wide area, and it can meet any needs in the area it serves, from a virtually inexhaustible supply.

Excellent Transportation

Railroads play a big role in the area's transportation picture, as some of the nation's largest rail systems have lines criss-crossing West Texas.

Notable among these are the Missouri-Kansas-Texas (Katy Line) Railroad, the Atcheson, Topeka & Santa Fe, Texas and Pacific, Texas & New Orleans, Fort Worth and Denver Railway (Burlington Route), and others.

Of the several modes of transportation available, only the railroads have industrial departments devoted exclusively to serving the commercial and industrial enterprises located along their lines and to attracting new enterprises to the communities they serve.

For many years the Katy has had a policy of "stockpiling" industrial sites. As good industrial property along the railroad becomes available, the development department buys it and holds it until an industry can be located.

The Santa Fe has seen remarkable growth during the past 10 years along its lines in far West Texas and in the Texas Panhandle. The railway's industrial development program and planned industrial districts have

played an important part in this growth.

The Texas and Pacific, which serves West Texas from Fort Worth on the east to El Paso on the west, has also been active in getting new industries to locate in West Texas through the efforts of its Industrial Development Department.

The Texas and New Orleans Railroad (Southern Pacific Lines in Texas and Louisiana) serves Texas in the territory lying between Del Rio and El Paso. Included in the area are extensive livestock, agricultural and mining operations. In El Paso alone

Already blessed with an extensive network of highways, the West Texas area got further improvement in this category during 1958.

The Texas Highway Department's programmed expenditures for new and improved highways in the 132-county area totaled more than \$100 million. Altogether, nearly 2,000 miles of highways in the area were either added to the existing network or were improved or reconstructed.

Construction on interstate highways covered some 128 miles, while purchase of rights-of-way were made on

232 miles.

The U.S. and State Highway program included 569 miles of construction. Farm-to-market roads accounted for 766 miles. Actual total cost of the new construction was \$103,695,652.

In addition to all the rail lines, West Texas is served by myriad trucking lines which reach even the smallest and most remote communities.

Major airlines operating in and through Texas, providing passenger and air freight and air express services, include Delta, American, Braniff, Eastern, Trans-Texas and Continental.

Recreational Facilities

Since the West Texas area embraces such a marked variety of elevations, terrain characteristics and climate, it offers a remarkable array of plant and animal life and an extensive range of places where outdoor play may be enjoyed to the fullest, regardless of individual preference and desire.

Included is Big Bend National Park which covers 788,682 acres of land. One of the outstanding geological laboratories of the world, it is the only place where the Rocky Mountain and Appalachian Systems are seen to

coverage. The park is bounded by more than 100 miles of the Rio Grande that is the Texas-Mexican border. Remains of dinosaurs abound there, and petrified trees as large as 14 feet in diameter lie near the surface of the ground.

In the flat, high plains of the Panhandle an outstanding attraction is Palo Duro Canyon which is believed to be 90 million years old. The great chasm, 120 miles long, has strange rock formations in rainbow colors.

The scenic hill country has aged cypress trees, sparkling streams, thousands of deer and wild turkey, and excellent fishing in an area that borders on the semi-tropic with a year-around mild climate.

Actually, as a result of land management practices put into effect by the Game & Fish Commission, there is more game available for legal harvest in West Texas than there was a quarter of a century ago.

The same is true of fishing which has vastly improved as a result of dam systems which have been built to halt floods, provide domestic water, irrigation, water for industry and for recreation.

LOOKING SOUTHWEST?

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you locate your new plant
or distribution center

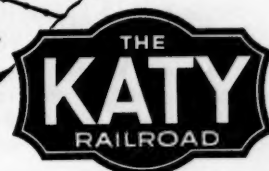
1. You get the services of trained professionals ... courtesy of the Katy Railroad.
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4. The most spectacular Southwest growth centers along the Katy-served corridor.



For an example of how Katy's industrial service works write for "Katy Freeway"... a development in Tulsa. Write:

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Vice-President, Industrial Development

M-K-T Railroad Company
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H. C. Vincent, Traffic Manager, Santa Fe Ry., Amarillo
R. E. Couden, Industrial Agent, Galveston
G. W. Wood, Industrial Agent, Dallas

WEST TEXAS

In addition to the Big Bend park, there are a number of state parks in West Texas which provide virtually every type of recreation. The newest

The elementary and high school systems throughout West Texas are excellent, and the plant builder may be assured that his children and those of his employees will have an opportunity for a good education in whatever community he may choose to settle.

The state has also an impressive list of institutions of higher learning.

Industrial Sites

Geographically, the West Texas area is ideally located from the standpoint of dispersal advantages. Plants in this section would be farthest removed from any possible enemy attack from across the Arctic, so the area is well worth considering from this viewpoint alone.

There is also, obviously, a lot of room in Texas. And, despite the extensive oil lands and potential oil and gas development areas, wide expanses of land are still available at per acre costs as low as any in the nation. Since the topography in West Texas ranges from plains to plateaus to mountains, a great variety of industrial plant site choices are available.

To give prospective industrialists specific financial aid in plant planning and in actual building of manufacturing buildings, a number of West Texas communities have set up active industrial foundations.

As listed in the 1959 Site Selection Handbook of Industrial Development, among cities with such foundations are Alice, Amarillo, Denton, Gainesville, Hillsboro, Big Spring, Wichita Falls, Bowie, Cisco, Graham, Grandview, Killean, Mineral Wells and Weatherford.

The Handbook lists also planned industrial districts in such West Texas cities as Abilene, Amarillo, Brownwood, Childress, Denton, Fort Worth, Gainesville, Grand Prairie, Goldthwaite, Merkel, Midland, Nocono, Odessa and Wichita Falls.

Excellent examples of the kind of carefully planned industrial districts which may be found in the area are Abilene Plaza at Abilene and Great Southwest Industrial District near Fort Worth.

The Abilene district has 800 completely planned acres and is situated only 3.2 miles from downtown Abilene. It is at the intersection of three trans-

continental highways—U.S. 80, 83 and 277—and is served directly by the Texas and Pacific Railway. The Abilene & Southern and the Fort Worth & Denver also serve Abilene.

Located at the strategic geographic center between Fort Worth and Dallas is the Great Southwest Industrial District which has 5,300 acres of land planned and developed for industry.

All major streets and industrial boulevards are in, with 200,000 square yards of asphaltic concrete street paving and 75,000 linear feet of curb and gutter. All utilities, including gas, water, electric power and sewage, are in. There is a natural gas station and electric power sub-station located on the site to provide any required load.

Currently, more than 775,000 square feet of building is completed or under construction in the 900-acre initial development of the district.

The district is divided into a series of industrial communities which include such important services as restaurant, shopping, and recreational facilities, along with hotel accommodations.

Development of the district is being done by Great Southwest Corporation which has offices in Fort Worth and Dallas.

The Outlook

The West Texas oil production area which, as noted elsewhere in this report, is centered in the Permian Basin part of the state, offers new development opportunities which should continue far into the future.

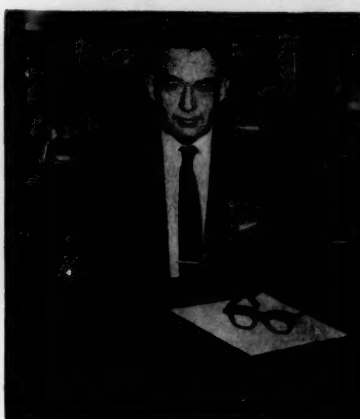
In Midland, for example, which is in the heart of the petroleum area, more than 600 oil and oil servicing firms maintain offices, a total more than in any other city in the world.

There are also more drilling contracts let in Midland, and more oil field supplies and equipment purchased, than in any city in the world.

Among other types of industries, the production of apparel has enjoyed a marked expansion. The apparel industry is centered in the El Paso area, but there are altogether 60 cities and towns in West Texas which have a total of 176 apparel manufacturing companies.

The West Texas Chamber of Commerce describes this as one of the growth industries in the area and which offers many opportunities for further development in the field.

Other opportunities exist in the rubber products industry, precision instru-



The site-seeker will find a number of well-staffed, professional groups ready to provide assistance in West Texas. Perhaps the dean of developers in the section is Fred Elliston, of Texas Electric Service. Elliston says the extent of development service is evidence that "Industry is more than welcome here."

ments and various electronics items, air conditioning equipment manufacturing, glass production; chemicals, including many not related to petroleum; transportation equipment, construction materials, food processing and many others.

Natural gas supplies the energy to produce most electric power in West Texas, and this will certainly continue into the foreseeable future. However, in the long range picture, it is anticipated that nuclear energy will probably provide low-cost power when the price of natural gas reaches a point where it will no longer be economical to burn it for power production.

West Texas, as well as the remainder of the state, has been the scene of considerable exploration for uranium. With the increase in this activity, a number of allied industries and businesses have been established, and existing industries have expanded the scope of their activities to include uranium.

The prospect is that as more and more uranium deposits are discovered in West Texas, opportunities for activities

I.D. AREA SURVEY

The accompanying editorial survey of plant location factors in the 132-county West Texas area was conducted by Industrial Development under the sponsorship of the community, business and industrial groups whose advertisements appear in this section. Reprints of the West Texas report are available from the advertisers.

related to the development of atomic energy will continue to open up.

Development

Ready, willing and able to assist you in site selection in West Texas are not only the industrial development departments of the railroads, utilities and banks but also various development groups in each of the cities and towns.

A comprehensive listing, by cities, of development groups in Texas is carried in I.D.'s annual Site Selection Handbook in the geographical section. This handy alphabetical summary gives the name of the city, the particular organization concerned, and the name of the individual to be contacted. Even the smallest communities are listed, and a direct query to any one of them in which you may be interested will bring you full information about the particular area or areas which you may be considering as a potential plant site.

Evidence that West Texans are going "all out" to help you in this connection may be seen in the fact that chambers of commerce in the area during 1958 had a promotion budget of more than \$2.25 million, according to a survey made by the West Texas Chamber of Commerce.

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- 8 freight forwarders, 24 motor carriers and 5 bus lines).

Let us tell you more about Amarillo — the city with great potential. Ask for our free "Facts" book by writing to: Board of City Development, Box 1331, Amarillo, Texas.



CITY OF AMARILLO *Texas*

RECENT RELEASES

By Suzanne Johnson

For Your General Check List File

Coloring Planning for Business and Industry by Howard Ketcham. In this book, America's leading color and lighting authority shows you how to use color to increase sales, improve morale and efficiency, and attract greater attention to your product. Hundreds of case histories reveal how color improves safety, builds prestige, peps up advertising and promotion, and keeps you a step ahead of your competition.

You learn some amazing facts about what color can do—stimulate or relax people, cool warm areas and warm cool ones, and even appear to change proportions of a room or package. Here is a practical, clear guide on all phases of color use and selection for businessmen in every field. Harper & Brothers, 49 East 33rd Street, New York, New York. 269 pages. \$5.95.

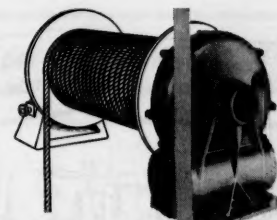
Long-Range Planning for Management edited by David W. Ewing. Addressed to top management, this book details the best current thinking on the subject from the *Harvard Business Review* and a variety of other authoritative sources. The chapters included have been grouped according to their emphasis on general principles, organization, steps and techniques, special problems, planning limitations, and basic strategy.

Major questions covered are: How should a company organize for long-range planning? What steps should top management take in making a long-range plan? What are the special problems and techniques of long-range planning? What are the keys to sound long-range strategy? Harper & Brothers, 49 East 33rd Street, New York, New York. 489 pages. \$6.50.

How To Buy Real Estate For Profit by Clyde T. Cadwallader. This book is for neophytes, those who have never purchased land for speculation. This first information about a growing field of profitable investment may well show thousands of people the way to a new, and yet an old way of making money. Here are all the guiding rules for knowing what, when and how to buy. Included are examples of how spectacular profits have been made, how to acquire the type of property from which such profits can be made, factors that cause real estate to increase in value, what to look for in buying the *right* real estate. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 307 pages. \$5.95.

January, 1959

65



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Industrial Districts

The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

Services offered are indicated by the following code: (A) Architect & Engineers; (C) Construction; (E) Electric Power; (G) Natural Gas; (F) Financing; (P) Paved Streets; (R) Rail Sid-ing; (S) Sewers; (T) Telephone; (W) Water.

Iowa

IOWA "MANUFACTURING MEADOWS"—Clinton, Iowa (population 35,000). 138 miles west of Chicago on Mississippi River and Lincoln Highway (U. S. 30). 190 acres within city. Master plan by Skidmore, Owings & Merrill. Served by Chicago and North Western Railroad. Developed by Clinton Development Company, a civic-non-profit corporation. CHapel 2-4536. R. J. Stapleton, Managing Director. Services available: (a) (optional), (c), (e), (g), (f) (optional), (p), (r), (t), (w), restrictions.

Missouri

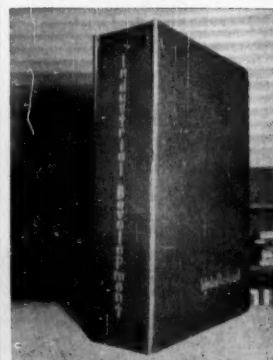
PAGE INDUSTRIAL CENTER—St. Louis—a planned industrial park, developed by Page Industrial Center, Inc., 7811 Carondelet, St. Louis 5, Mo., Edward L. Bakewell, Realtor, phone CENtral 1-5555, served by Rock Island Railroad, 60 acres with all services available on property. Restrictions.

Georgia

METROPOLITAN ATLANTA—Five Industrial Districts offering planned sites of varying location, size, price. Services available: (A) optional, (C), (E), (G), (F) optional, (P), (R), (S), (T), (W). In your Southeastern plant or warehouse survey contact: F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

Available Sites

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County Record Bldg., New Brunswick, N. J.

SALISBURY, N. C.—Freeway sites with all utilities and rail or nearby large tracts on Yadkin River. NEW Fantus engineering study confirms profit and pleasant living in community. NEW airport (4200' x 100') paved; NEW Holiday Inn (const.); NEW "Y"; NEW schools; NEW shopping center; NEW outlook among people. Contact: William P. Pence, Mgr., C of C, ME 3-4221 or Box 559.

SUBURBAN ATLANTA—Sites of 3, 5, 10, 25, 50, 100 or more acres. All utilities and rail service in DeKalb County—Georgia's newest industrial area. 70% urban with more than 200 industries in industrial districts and individual tracts. For your new Southeastern plant or warehouse location—Inquire and visit through F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

FLORIDA LONG SHOT: Here's a good bet for an executive who wants to make a small investment in undeveloped Florida property. Priced low, this tract may appreciate ten times in few years. Best suited now for winter hideaway, subdivision possibilities later. Reply to Box ID 1-3.

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Does your firm need to be better known in the industrial world? Would increased prestige for your top executives be valuable? Are you planning a new stock issue, a major expansion, or new product release which needs the support of wide news coverage? If so, investigate the plan whereby specialists on our staff may advise and assist you. Box CIS, **INDUSTRIAL DEVELOPMENT**, 295 Madison Ave., New York 17, N. Y.

Personnel Placement

INDUSTRIAL DEVELOPMENT EXECUTIVE with professional experience available soon for greater challenge. Thoroughly familiar with all phases of ID organization, promotion and management. Prompt response to inquiries. Contact ID Box 1-1.

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INVESTMENT OPPORTUNITY—Substantial individual launching new development venture needs \$25,000 to \$100,000 in additional financing. Project is national in scope, professional in character, and has excellent long-term possibilities. This is an investment which would appreciate greatly under threat of another World War. Negotiations will be strictly confidential. Contact ID Box 1-2.

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Abilene Chamber of Commerce, Glenn Biggs, Assistant Manager, P. O. Box 2281, Abilene, Texas. (Ad page 55).
Alabama Power Company, W. Cooper Green, Vice President in charge of Industrial Development, 600 North 18th St., Birmingham, Ala. (Ad page 34).
City of Amarillo, Jack Lacy, Executive Vice President, Amarillo Bldg., Amarillo, Texas. (Ad page 64).
American and Foreign Power Company, Inc., S. A. LaFaso, Advertising Manager, 2 Rector St., New York 5, N. Y. (Ad page 13).
Anniston Chamber of Commerce, Leonard A. Gilbert, Manager, Radio Bldg., Anniston, Ala. (Ad page 3).
Arkansas Industrial Development Commission, William R. Ewald, Jr., Chief of Development, State Capitol, Little Rock, Ark. (Ad 4th cover).
Big Spring Chamber of Commerce, Bill Quimby, Manager, Box 1391, Big Spring, Texas. (Ad page 59).
Frank G. Binswanger, Inc., Frank G. Binswanger, 1420 Walnut St., Philadelphia 2, Pa. (Ad page 3).
Blackhawk Industrial Development Promotion Association, John A. Smithers, 1610 Fifth Ave., Moline, Ill. (Ad page 16).
Greater Burlington Industrial Corporation, Charles D. Townsend, Executive Director, Box 613, Burlington, Vt. (Ad page 14).
Childress Board of City Development, W. T. Thompson, P.O. Box 28, Childress, Texas. (Ad page 53).
Colorado Department of Development, Lewis R. Cobb, Executive Director, State Capitol, Denver, Colo. (Ad page 15).
Denver City Chamber of Commerce, Art Paul, Denver City, Texas. (Ad page 53).
El Paso National Bank, G. Bianche, Vice President, El Paso, Texas. (Ad page 56).
Florence Chamber of Commerce, Harry W. Elliott, Jr., Executive Vice President, 131 W. Evans St., Florence, S. C. (Ad page 15).
Fort Worth Chamber of Commerce, Rex Jennings, Manager, Industrial Department, 114 East Eighth St., Fort Worth 2, Texas. (Ad page 60).
Great Southwest Corporation, Angus G. Wynne, Jr., President, 3417 Gillespie Ave., Dallas, Texas. (Ad page 50).
Johnson City Chamber of Commerce, Richard A. Boykin, Industrial Director, 339 East Main St., Johnson City, Tenn. (Ad page 4).
LaSalle - Peru - Oglesby - Spring Valley Chamber of Commerce, Robert W. Blomgren, Director of Industrial Development, 126½ Marquette St., LaSalle, Ill. (Ad page 15).
Lewis Terminals, Philip D. Lewis, Vice President, 31 W. 20th St., Riviera Beach, Fla. (Ad page 4).
Lone Star Gas Company, Jim Carll, Public Relations, 301 S. Harwood, Dallas, Texas. (Ad page 56).
Louisiana Department of Commerce and Industry, Gibbs Adams, Assistant Executive Director, P. O. Box 4185, Capitol Station, Baton Rouge, La. (Ad page 5).
Manatee County Committee of 100, Harry Lee, Executive Director, Box 360, Bradenton, Fla. (Ad page 12).
Midland Chamber of Commerce, Maxie Davis, Industrial Department, P. O. Box 1606, Midland, Texas. (Ad page 59).
Mineral Wells Chamber of Commerce, George D. Barber, General Manager, Mineral Wells, Texas. (Ad page 63).
Missouri-Kansas-Texas Lines, M. R. Cring, Assistant to President, Railway Exchange Bldg., St. Louis, Mo. (Ad page 61).
New Haven Railroad, Percy Benjamin, Vice President in charge of Industrial Development, Grand Central Terminal, New York, N. Y. (Ad page 15).

ID SECRET SITE SERVICE

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New York Central System, W. J. Marshall, Manager of Industrial Development, 466 Lexington Ave., New York, N. Y. (Ad 2nd cover, page 1).
Nickel Plate Road, Martin H. Markworth, Industrial Commissioner, Terminal Tower, Cleveland, Ohio. (Ad page 16).
State of North Carolina, Department of Conservation and Development, William P. Saunders, Director, Raleigh, N. C. (Ad page 48).
Orange County Industrial Developers, Inc., Jess N. Stafford, 123 E. 11th St., Santa Ana, Calif. (Ad page 2).
St. Petersburg Chamber of Commerce, Jack Bryan, Industrial Director, 4th St. & 3rd Ave., St. Petersburg, Fla. (Ad page 45).
Santa Fe Railway, G. W. Cox, Assistant to President, 80 East Jackson Blvd., Chicago, Ill. (Ad page 62).
South Carolina National Bank, Chauncey W. Lever, Vice President, S. C. Nat'l. Bank Bldg., Greenville, S. C. (Ad page 5).
Southwestern Electric Service Company, C. D. Goforth, Director of Industrial Development, 1202 Mercantile Bank Bldg., Dallas, Texas. (Ad page 14).
Texas Electric Service Company, F. A. Elliston, Manager, Area Development, Box 970, Fort Worth, Texas. (Ad page 54).
Texas Power and Light Company, James D. Eppright, Director of Industrial Development, Fidelity Union Life Bldg., Dallas, Texas. (Ad page 58).
Toronto Industrial Leaseholds, Vera Norman, Executive Assistant, 12 Sheppard St., Toronto, Ontario, Canada. (Ad page 5).
Tracy District Chamber of Commerce, George Sawyer, Manager, Tracy Inn Bldg., Tracy, Calif. (Ad page 2).
Union Electric Company, M. E. Skinner, Vice President and Director of Sales, 315 N. Twelfth Blvd., St. Louis, Mo. (Ad 3rd cover).
West Texas Utilities Company, W. P. Savies, Industrial Department, 1062 N. 3rd, Abilene, Texas. (Ad page 52).
Windor Properties, Inc., W. C. Windor, Jr., President, 211 Mercantile Commerce Bldg., Dallas, Tex. (Ad page 36).

PLANT CONSTRUCTION AND INDUSTRIAL SERVICES:

American Croosote Works, Inc., S. B. Braselman, Jr., Vice President, 1305 Dublin St., New Orleans, La. (Ad page 42).
Diamond Manufacturing Company, Wyoming-Wilkes Barre Area, Pa. (Ad page 43).
The Kinnear Manufacturing Company, H. H. Nutter, Vice President, 1191 Fields Ave., Columbus, Ohio. (Ad page 46).
Southeastern Plastics Sales Company, Bradford L. Nicholson, 610 Morosgo Dr., N.E., Atlanta 5, Ga. (Ad page 44).
Southern Lightweight Aggregate Company, A. C. Ford, Advertising Manager, 2508 Chamberlayne St., Richmond, Va. (Ad page 40).
Hyman Viener and Sons, J. M. Viener, Partner, 5300 Hatcher St., Richmond, Va. (Ad page 40).

OTHER SERVICES:

Industrial Sound Films, Inc., Stancel L. May, Jr., Sales Manager, 2592 Apple Valley Rd., N. Atlanta 19, Ga. (Ad page 42).
Momar Industries, 4323 W. 32nd St., Chicago, Ill. (Ad page 39).
Production Die-Casting Company, P. W. Davis, President, 6502 Rusk Ave., Houston, Texas. (Ad page 45).
Sauereisen Cements Company, Sharpburg, Pa. (Ad page 40).
Southern Airways, Inc., Archie Yawn, Sales Promotion Manager, General Offices—Atlanta Airport, Atlanta, Ga. (Ad page 8).



*The
Colonel
Says*

CONTORTIONS

Do the gals in your office make a practice of assuming horrible postures while trying to do their work? If so, and it probably is so, then some of the following contortions may be familiar:

The Slouch: This babe has her shoulders against the back of her chair, but the middle of her back is arched out, crowding the chest and abdomen, retarding circulation and inducing fatigue. She starts making mistakes early in the day.

The Spaghetti Spine: She has an air of undue eagerness, leaning forward with the spine curved out in an arc and her head sort of dangling at the top end. Since this position crowds the lungs and restricts the normal air intake, it is unhealthy, uncomfortable and tiring.

The Pretzel Leg: Sitting with her feet twining around the rungs of her chair, this lass develops a leg ache, a gangling, awkward look, and frequently ruined nylons.

Miss Straight and Smooth: Seen far too infrequently, this efficient type sits tall and straight. She is settled back in her chair in such a manner that the bottom end of her spinal column is at the rear of the seat, and when it is necessary for her to lean forward, she pivots from the hips and keeps her body in a straight line.

Since correct posture gives the lungs room to work, eliminating chest and abdominal constriction, fatigue is lessened and the mind is kept more alert.

So, pass this note on to the girls—with the reminder, too, that correct posture makes them not only feel better but also look better.

This advice is passed on from the Bureau of Business Practice, a division of Vision, Inc., New York.

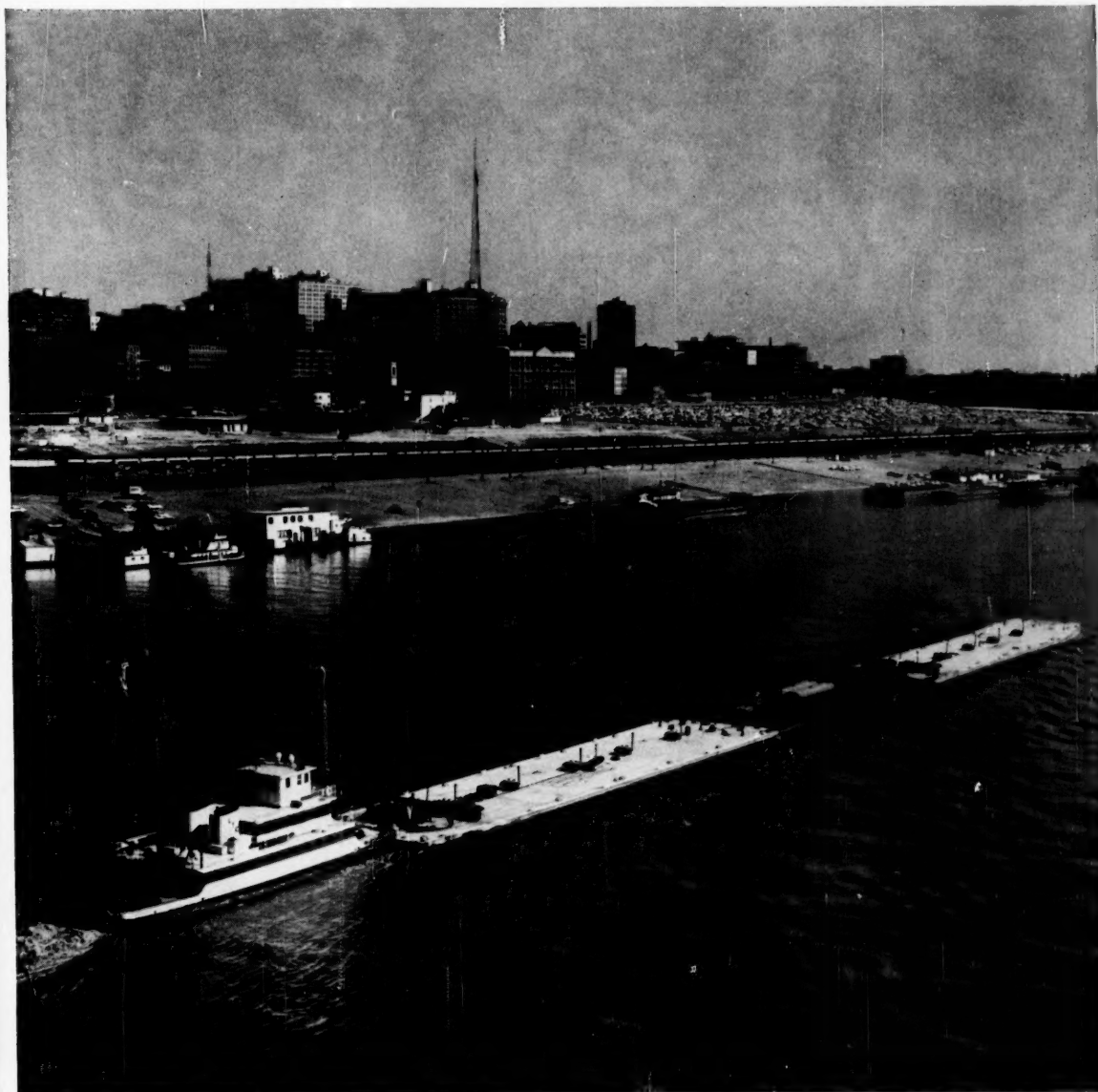
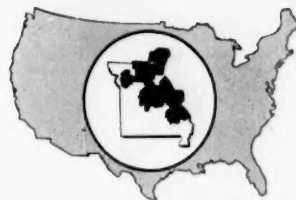
FASHIONS

The Colonel observes that women's fashions of a year or so ago made them look as if they had been poured into their dresses, while the current look makes them appear as if they had settled to the bottom.

MIDDLE AGE

Further philosophical intelligence informs us that middle age is that period of life when you would do just about anything to feel better except give up the things that make you feel bad.

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we believe our encyclopedia can tell you more about the Arkansas Development Commission, State Capitol, Little Rock

